

Safety Data Sheet

Section 1: Identification

Product identified:

Clinoptilolite – Natural Zeolite CAS No. 12173-10-3

None ZeoFill® USA

Restrictions on use or sale:	
Company:	

Emergency telephone number:

888 926 - 4785 (ZeoFill® Office)

Mira Loma, California 91752

12523 Limonite, Suite 440, Box 418

Phone: 888 926 - 4785 Website: <u>www.zeofill.com</u> Email: <u>info@zeofill.com</u>

Section 2: Hazard Identification

Regulation (EU) No 1272/2	2008
GHS regulations:	Not classified as hazardous.
CLP regulation:	Not classified as hazardous.
Directive 67/548/EEC:	Not applicable.
Directive 1999/45/EC:	Not applicable.
Classification system:	The classification is according to the latest editions of the EU-lists and extended by company
	literature data. The classification is in accordance with the latest editions of international

Label elements:

Regulation (EC) No 1272/2008: Hazard pictogram: Signal word: Hazard determining components: Hazard statements: NFPA Hazard Rating (Scale 0 to 4) Not regulated. Not regulated. Not regulated. None. Not regulated.



Health (Blue)0No precaution necessary.Flammability (Red)0Non combustible.Reactivity (Yellow)0Not reactive when mixed with water.Special (White)None

substances lists and is supplemented by information from technical literature.

1907/2006/EC (REACH), 1272/2008/EC (CLP), and GHS

HMIS Hazard Rating (Scale 0 to 4)

HEALTH	0
FLAMMABILITY	0
REACTIVITY	0

Health (Blue) Flammability (Red) Reactivity (Yellow)

Not applicable.

Not applicable.

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 Will not burn.
Will not react, polymerize, decompose, condense, or self react. Non-explosive.

No significant health risk.

PBT and vPvB Assessment: PBT

vPvB

Section 3: Composition/Information on ingredients

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Dangerous components:	None in reportable	e quantities.	
Chemical and common name	Wt. %	CAS Registry	EINECS
Clinoptilolite (natural zeolite) 90-97	12173-10-3	215-283-8
Water	3-10	7732-18-5	231-791-2

Section 4. First Aid Measures

General:	No special measures required.
After inhalation:	Supply fresh air; consult doctor in case of complaints.
After skin contact:	Clean with water and soap. If skin irritation is experienced, consult a doctor.
After eye contact:	Remove contact lenses if worn. Rinse opened eye for several minutes under running water.
	If symptoms persist, consult a doctor.
After swallowing:	Rinse out mouth and then drink plenty of water. Do not induce vomiting. Treat symptomatically.

Section 5. Fire-Fighting Measures

Suitable extinguishing media:	Noncombustible.
Extinguishing media:	Compatible with all extinguishing media.
Unusual hazards:	None known.

Section 6. Accidental Release Measures

Personal precautions:	Avoid dust – use NIOSH approved respirator where dust occurs.
Environmental precautions:	No special measures required.
Protection equipment:	Safety glasses or chemical goggles.
Spills cleanup:	Pick up mechanically and place in a suitable container - avoid generating dust.

Section 7. Handling and Storage

Safe handling:	Avoid contact with eyes, skin, and clothing. Avoid generating and breathing dust.
Safe storage:	No special requirements.

Section 8. Exposure Controls and Personal Protection

Limit values:

Does not contain any relevant quantities of materials with critical values that have to

	be monitored in the workplace.
DNEL:	No further information available.
DNEC:	No further information available.
General protection:	Use in a well ventilated workplace. Avoid generating and contacting dust.
Eye protection:	Wear safety glasses.
Respiratory protection:	Not necessary in well ventilated area.

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Skin protection:	Wear protective gloves against mechanical hazards according to NIOSH or EN 388.
Body protection:	Not required under normal conditions of use.

Sections 9. Physical and Chemical Properties

Appearance:	Light tan solid (powders and	granules).
Odor:	Odorless.	
Oder threshold:	Not determined.	
pH values:	Not applicable.	
Change in condition:	Melting point/melting range:	Not determined.
	Boiling point/boiling range:	Not determined.
Flash point:	Not applicable. Will not burn	
Evaporation rate:	Not applicable; does not evaporate.	
Flammability (solid, gas):	Not flammable.	
	Upper/lower limits:	Not applicable.
Danger of explosion:	Does not present and explosive hazard.	
	Upper/lower limits:	Not applicable.
Vapor density:	Does not apply. Does not evaporate.	
Relative density:	Not determined	
Solubility:	Water	Insoluble.
	Alcohol	Insoluble.
Partition coefficient:	Not applicable (insoluble in r	n-octanol and water).
Auto ignition temperature:	Will not auto ignite.	
Decomposition temperature:	Not determined.	
Viscosity:	Not applicable - solid.	

Section 10. Stability and Reactivity

Chemical stability	Stable if used as intended.
Thermal stability:	Stable if used as intended.
Hazardous reaction:	Possibility of hazardous reaction with strong acids and strong alkali.
Conditions to avoid	No further information available.
Materials to avoid	Strong acids and strong bases.
Hazardous decomposition:	No further information available.

Section 11. Toxicological Information

Toxicological:

When used and handled according to instructions, the product does not have any

	harmful effects based upon our experience.
Sensitization:	No sensitizing effects known.
General EU Guidelines:	Not subject to classification according to the calculation method of the General
	EU Classification Guidelines for Preparations as issued in the latest version.
NTP	Not listed in the National Toxicological Program Report on Carcinogens, 2011.
IARC	International Agency for Research on Cancer MONOGRAPHS VOLUME 68: clinoptilolite
	cannot be evaluated as to the carcinogenicity to humans (Group 3).

Section 12. Ecological Information

Toxicity:	No known toxicity to plants or animals.
Environmental fate	Inorganic material does not decompose and is not eliminated from environment by means of
	biological cleaning processes.
Bioaccumulation:	Does not bioaccumulate in animal or plants.
Mobility in soil:	Not mobile.

Section 13. Disposal Consideration

Classification:	Not a RCRA Hazardous Waste.
Disposal method:	Dispose in accordance with federal, state (provincial), and local regulations.

Section 14. Transportation Information

UN Number:	DOT, ADR, ADN, IMDG, IATA:	Not Regulated.
UN Proper Shipping Name:	DOT, ADR, ADN, IMDG, IATA:	Not Regulated.
Transport Hazard Class:	DOT, ADR, ADN, IMDG, IATA:	Not Regulated.
Packing Group:	DOT, ADR, IMDG, IATA:	Not Regulated.
Marine pollutant:	No.	
Proper shipping name:	Non-Hazardous for Transport.	
Hazard Symbol:	None required.	
Hazard Id Number (HIM):	None.	

15. Regulatory Information

United States		
SARA 355:	Extremely hazardous substances:	None of the ingredients listed.
SARA 313:	Specific toxic chemical listings:	None of the ingredients listed.
TSCA:	All of the ingredients are listed.	
California Prop 65:	Known to cause cancer:	None of the ingredients listed.
	Known to cause reproductive toxicity:	None of the ingredients listed.
	Known to cause developmental toxicity:	None of the ingredients listed.
Carcinogen categories:	EPA	None of the ingredients listed.
	IARC	None of the ingredients listed.
	TLV by ACGHI	None of the ingredients listed.
	NIOSH-Ca	None of the ingredients listed.
	Ingredients Disclosure List (limit 0.1%)	None of the ingredients listed.
	Ingredients Disclosure List (limit 1%)	None of the ingredients listed.
REACH, Article 57:	Substances of very high concern (SVHC)Ne	one of the ingredients listed.

SDS according to 1907/2006/EC (REACH), 1272/2008/EC (CLP), and GHS

Canada: **CPR:** (Canadian Controlled Products Regulations): This product has been classified in accordance with the hazard criteria of the CPR and the MSDS contains all the information required by the CPR. WHMIS Classification: Not Controlled.

DSL / NDSL: (Canadian Domestic Substances List / Non-Domestic Substance List): Components of this product identified by CAS number are not listed on the DSL or NDSL, or are otherwise in compliance with the New Substances Notifications (NSN) regulations.

Chemical Safety Assessment: A Chemical Safety Assessment has not been carried out.

16. Other information

Safety Data Sheet:	
Approved by:	Scott Perez
Date:	February 08, 2022
Abbreviations:	
ACGIH	American Conference of Governmental Industrial Hygienists
ADR	European Agreement concerning the International Carriage of Dangerous Goods by Road
ADN	European Agreement concerning the International Carriage of Dangerous Goods
	by Inland Waterways
CAS	Chemical Abstracts Service (division of the American Chemical Society)
CLP	Classification, Labeling, and Packaging Regulation (EC) No 1272/2008
DNEL	Derived No-Effect Level (REACH)
DOT	US Department of Transportation
DSL	Domestic Substance List
EINECS	European Inventory of Existing Commercial Chemical Substances
ELINCS	European List of Notified Chemical Substances
EPA	Environmental Protection Agency
GHS	Globally Harmonized System of Classification and Labeling of Chemicals
HMIS	Hazardous Materials Identification System (USA)
IARC	International Agency of Research on Cancer
IATA	International Air Transport Association
IMDG	International Maritime Code for Dangerous Goods
NIOSH	National Institute of Occupational Safety and Health
NFPA	National Fire Protection Association (USA)
NTP	National Toxicological Program
PBT	Persistent, Bioaccumulative, and Toxic
PNEC	Predicted No-Effect Concentration (REACH)
REACH	Registration, Evaluation, Authorization, and Restriction of Chemicals; (EC) 1907/2008
RCRA	Resource Conservation and Recovery Act
SARA	Superfund Amendment and Reauthorization Act
SVHC	Substances of very high concern
TSCA	Toxic Substances Control Act
TLV	Threshold Limit Value
vPvB	Very persistent and very bioaccumulative
WHMIS	Workplace Hazardous Materials Information System (Canada)

The information on this Safety Data Sheet is believed to be accurate and is the best information available to KMI Inc. This document is intended only as a guide to the appropriate precautions for handling. KMI Inc. makes no warranty of merchantability or any other warrant, expressed or implied with respect to the information or the product to which this Safety Sheet relates. Users and handlers of this product should make their own investigations to determine the suitability of the information provided herein for their own purposes.

ZeöFill® NeutraFill®

PRODUCT TYPE: Coated Infill REVISION DATE: 23 Mar 2021 Version: 1.2

SAFETY DATA SHEET – NeutraFill Coated Infill (All Grades) XIF-002

PAGE 1 OF 8

Product Name: NeutraFill Coated Infill (All Grades) XIF-002

Product Use: Turf Infill. For professional use only.

Supplier: ZeoFill Inc.

12523 Limonite Ave, Suite 440, Box 418

Mira Loma, CA 91752

www.zeofill.com

For Non-Emergency information and General Inquiries: 888-926-4785

Emergency Phone: 1-800-424-9300 (CHEMTREC)

2. HAZARDS IDENTIFICATION

Classification of the Substance or Mixture		
OSHA Classification (GHS-US)	Carcinogen 1A, STOT SE 3, STOT RE 1	
WHMIS Classification	Carcinogen 1A, STOT SE 3, STOT RE 1	
Hazard Pictograms (GHS-US)		
Signal Word (GHS-US)	Danger	
Hazard Statements (GHS-US)	May cause respiratory irritation by abrasion	
	May cause cancer (Inhalation)	
	Causes damage to organs (lung/respiratory system) through prolonged or	
	repeated exposure (Inhalation)	
Precautionary Statements	Obtain special instructions before use.	
(683-03)	Do not handle until all salety precautions have been read and	
	Do pot broatho dust	
	Wash hands thoroughly after handling	
	Do not eat, drink or smoke when using this product.	
	Use only outdoors or in a well-ventilated area. Wear respiratory protection.	
	If INHALED: Remove victim to fresh air and keep at rest in a position	
	comfortable for breathing.	
	If exposed or concerned: Get medical advice/attention.	
	Store in a well-ventilated place. Keep container tightly closed.	
	Dispose of contents/container according to local regional national territorial	
	provincial, and international regulations.	
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Other Hazards Not Contributing to	Dust may cause irritation by abrasion to eyes, nose, throat, lungs. Exposure	
the Classification:	may aggravate pre-existing conditions and/or increase the risk of certain	
	disease. There is some evidence that exposure to respirable crystalline silica	
	(quartz) is associated with increased incidence of kidney diseases, including	
	end stage renal disease.	
Unknown Acute Toxicity (GHS-	0%	
US)		

PRODUCT TYPE: Coated Infill REVISION DATE: 23 Mar 2021 Version: 1.2

SAFETY DATA SHEET - NeutraFill Coated Infill (All Grades) XIF-002

PAGE 2 OF 8

3. COMPOSITION/INFORMATION ON INGREDIENTS			
Name	Product identifier (CAS)	% (w/w)	Classification (GHS-US)
Silica Sand (Quartz)	14808-60-7	98.0-99.5%	Carc. 1A, STOT SE 3, STOT RE 1
Polymer Resin		0.5-2.0%	Not a hazardous substance and bound to silica

4. FIRST AID MEASURES

Description of First Aid Measures		
General:	Immediately flush eyes with running water for at least 15 minutes. Seek medical attention for irritation.	
Inhalation:	Wash with soap and water.	
Skin Contact:	Move to fresh air. Seek medical attention if irritation develops.	
Eye Contact:	Rinse mouth with water. Get medical attention if discomfort persists.	
Ingestion:	Treat symptomatically.	

Most Important Symptoms and Effects Both Acute and Delayed		
Symptoms/Injuries:	Irritation by abrasion of respiratory tract.	
Symptoms/Injuries After Inhalation:	Chronic inhalation of respirable quartz (crystalline silica) may cause silicosis, a fibrosis or scarring of the lungs. Silicosis may be progressive and may lead to disability and death. Adverse health effects such as lung disease, silicosis, cancer, autoimmune disease, tuberculosis and nephrotoxicity can occur with exposure. There are generally no symptoms or signs of exposure to quartz. Chronic silicosis often has no symptoms. Acute silicosis can occur with exposures to very high concentrations of respirable quartz over a very short time period, sometimes as short as a few months. The symptoms of acute silicosis include progressive shortness of breath, fever, cough and weight loss. Acute silicosis is fatal.	
Symptoms/Injuries After Skin Contact:	Prolonged contact with dust may cause irritation by abrasion.	
Symptoms/Injuries After Eye Contact:	Prolonged contact will cause irritation by abrasion and may result in corneal injury.	
Symptoms/Injuries After Ingestion:	None expected under normal conditions of use.	
Chronic Symptoms:	Prolonged and frequent exposure through inhalation may cause cancer or damage lungs.	
Indication of Any Immediate Medical Attention and Special Treatment Needed	If you feel unwell, seek medical advice.	

PRODUCT TYPE: Coated Infill REVISION DATE: 23 Mar 2021 Version: 1.2

SAFETY DATA SHEET - NeutraFill Coated Infill (All Grades) XIF-002

PAGE 3 OF 8

5. FIRE-FIGHTING MEASURES

Suitable Extinguishing Agents	Use extinguishing media appropriate for surrounding fire.
Unsuitable Extinguishing Agents	None known
Products of Combustion	None anticipated

Advice for Firefighters		
Precautionary Measures Fire	Exercise caution when fighting any fire	
Firefighting Instructions	Fight fire from safe distance and protected location.	
Hazardous Combustion	May release toxic fumes, including Formaldehyde, Silicon Oxides, and Carbon	
Products	Oxides	
Protection of Firefighters	Fire fighters should wear "bunker gear" and Self-Contained Breathing Apparatus (SCBA).	

6. ACCIDENTAL RELEASE MEASURES

Personal Precautions	Do not breathe dust. Avoid generating dust.
Environmental Precautions	Not available

For Non-Emergency Personnel	
Protective Equipment:	Use appropriate personal protection equipment (PPE).
Method of Cleanup	Shovel into containers for reuse. Do not use product contaminated with dirt, water or other materials. Contaminated materials should be disposed of in a suitable facility.
Methods and Material for Containment and Cleaning Un	

Methods and Material for Containment and Cleaning Up		
For Containment:	Use appropriate personal protection equipment (PPE).	
Methods for Cleaning Up:	Avoid generation of dust during clean-up of spills. Use only non-sparking tools.	
Reference to Other	See Section 8, Exposure Controls and Personal Protection.	
Sections		

7. H/	IG AND	STOR	AGE

Additional Hazards When Processed:	Good housekeeping is needed during storage, transfer, handling, and use of this material to avoid excessive dust accumulation.
Hygiene Measures	Handle in accordance with good industrial hygiene and safety procedures. Use only outdoors or in a well-ventilated area. Do not breathe dust.
Storage Conditions	Store in a well-ventilated place.
Incompatible Materials	Strong bases. Strong acids. Strong oxidizers.
Specific End Use(s)	Proppant. For professional use only.

SAFETY DATA SHEET - NeutraFill Coated Infill (All Grades) XIF-002

PAGE 4 OF 8

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

	Quartz (14808-60-	7) (Respirable dust only)
USA ACGIH	ACGIH TWA (mg/m ³)	0.025 mg/m³
USA OSHA	OSHA PEL (STEL) (mg/m ³)	250 mppcf/%SiO2+5, 10mg/m³/%SiO2+2
USA NIOSH	NIOSH REL (TWA) (mg/m³)	0.05 mg/m³
USA IDLH	US IDLH (mg/m³)	50 mg/m³
Alberta	OEL TWA (mg/m³)	0.025 mg/m³
British Columbia	OEL TWA (mg/m³)	0.025 mg/m³
Saskatchewan	OEL TWA (mg/m³)	0.05 mg/m³
Yukon	OEL TWA (mg/m³)	300 particle/mL
USA ACGIH	ACGIH TWA (mg/m ³)	0.025 mg/m³

Particles Not Otherwise Specified		
USA OSHA	OSHA PEL (TWA)(mg/m³)	15 mg/m ³ (total dust)
USA OSHA	OSHA PEL (TWA)(mg/m ³)	5 mg/m ³ (respirable fraction)
USA ACGIH	ACGIH TWA (mg/m ³)	10 mg/m ³ (total dust)
USA ACGIH	ACGIH TWA (mg/m ³)	3 mg/m ³ (respirable fraction)

Appropriate Engineering Controls	Ensure adequate ventilation, especially in confined areas.
Personal Protective Equipment	Insufficient ventilation: wear respiratory protection.
Materials for Protective Clothing	Specific materials not required.
Hand Protection	Impermeable protective gloves.
Eye Protection	In case of dust production: protective goggles.
Skin and Body Protection	Wear suitable working clothes.
Respiratory Protection	Use NIOSH-approved air-purifying or supplied-air respirator where airborne
	concentrations of dust are expected to exceed exposure limits.
Other Information	When using, do not eat, drink or smoke

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical State	Solid	Flash point	Not flammable
Appearance	Grayish/Black, Green or Red Granular Sand	Upper/lower Flammable Limits	Not available
Odor	Odorless	Auto-ignition Temperature	Not available

PRODUCT TYPE: Coated Infill REVISION DATE: 23 Mar 2021 Version: 1.2

SAFETY DATA SHEET - NeutraFill Coated Infill (All Grades) XIF-002

PAGE 5 OF 8

Odor Threshold	Not available	Decomposition temperature	Not available
рН	Not applicable	Relative Evaporation Rate (butyl acetate=1)	Not available
Boiling Point	2230 C	Vapor Pressure	Negligible
Melting/Freezing Point	2930 °F (1610 °C)	Relative Vapor Density at 20 °C	Not available
Solubility	Insoluble in water	Density	2.5 (vs water)
Viscosity	Not available	Octanol/Water Partition Coefficient	Not available
Flammability (solid, gas)	Not available	Relative Density/Specific Gravity	Not available
Explosion Data – Sensitivity to Mechanical Impact	Not expected to present an explosion hazard due to mechanical impact.	Explosion Data – Sensitivity to Static Discharge	Not expected to present an explosion hazard due to static discharge.

Note: The physical data presented above are typical values and should not be construed as a specification.

10. STABILITY AND REACTIVITY

Reactivity:	Product is stable.
Chemical Stability:	Product is not explosive.
Conditions to Avoid:	Sparks, heat, open flame and other sources of ignition. Avoid creating or spreading dust.
Possibility of Hazardous Reactions:	Hazardous polymerization will not occur.
Incompatible Materials:	Strong acids, strong bases, strong oxidizers.
Hazardous Decomposition Products:	Quartz (silica) will dissolve in hydrofluoric acid producing a corrosive gas, silicon tetrafluoride.

11. TOXICOLOGICAL INFORMATION

No investigations were carried out with the preparation itself. The properties of this product which are hazardous to health have been calculated as per regulation (EC) No. 1272/2008. See Section 2 "Hazards Identification.

Acute Toxicity	Not classified
LD50 and LC50 Data:	Not available but considered systemically non-toxic.
Skin Corrosion/Irritation	Not classified (pH: 6.5 - 7.5) in solution
Serious Eye Damage/Irritation	Not classified (pH: 6.5 - 7.5) in solution
Respiratory or Skin Sensitization	Not classified
Germ Cell Mutagenicity	Not classified

PRODUCT TYPE: Coated Infill REVISION DATE: 23 Mar 2021 Version: 1.2

SAFETY DATA SHEET - NeutraFill Coated Infill (All Grades) XIF-002

PAGE 6 OF 8

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Teratogenicity	Not available
Carcinogenicity	May cause cancer (Inhalation).
Specific Target Organ Toxicity (Repeated Exposure)	Causes damage to organs (lung/respiratory system) through prolonged or repeated exposure (Inhalation).
Reproductive Toxicity	Not classified
Specific Target Organ Toxicity (Single Exposure)	May cause respiratory irritation by abrasion.
Aspiration Hazard	Not classified
Symptoms/Injuries After Inhalation	May cause respiratory irritation. Repeated or prolonged exposure to respirable (airborne) crystalline silica dust will cause lung damage in the form of silicosis. Symptoms will include progressively more difficult breathing, cough, fever, and weight loss.
Symptoms/Injuries After Skin Contact	Prolonged contact with large amounts of dust may cause irritation by abrasion.
Symptoms/Injuries After Eye Contact	Repeated or prolonged contact will cause irritation by abrasion. Prolonged contact may result in corneal injury.
Symptoms/Injuries After Ingestion	None expected under normal conditions of use.
Chronic Symptoms	Prolonged and frequent exposure through inhalation may cause cancer. Repeated or prolonged inhalation may damage lungs.

Information on Toxicological Effects - Ingredient(s)		
LD50 and LC50 Data:		
Quartz (14808-60-67)		
Oral Rat	> 5000mg/kg	
Quartz (14808-60-7)		
IARC Group	1	
National Toxicity Program(NTP) Status	Known Human Carcinogens.	

12. ECOLOGICAL INFORMATION

Toxicity	Not classified
Persistence and Degradability	Not available
Bio-accumulative Potential	Not available
Other Adverse Effects	Not available

PRODUCT TYPE: Coated Infill **REVISION DATE:** 23 Mar 2021 Version: 1.2

SAFETY DATA SHEET - NeutraFill Coated Infill (All Grades) XIF-002

PAGE 7 OF 8

13. DISPOSAL CONSIDERATIONS	
Waste Disposal Recommendations:	Dispose of waste material in accordance with all local, regional, national, provincial, territorial and international regulations.

14. TRANSPORT	INFORMATION
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14. TRANSPORT INFORMATION	
In Accordance with DOT	Not regulated for transport
In Accordance with IMDG	Not regulated for transport
In Accordance with IATA	Not regulated for transport
In Accordance with TDG	Not regulated for transport

15. REGULATORY INFORMATION

US Federal Regulations	
Quartz (14808-60-7)	
SARA Section 311/312 Hazard Classes	Carcinogen 1A. STOT SE -3. STOT RE-1
TSCA (Toxic Substances Control Act)	Listed on the United States TSCA inventory

US State Regulations	
Quartz (14808-60-7)	
U.S California - Proposition 65 – Carcinogens - Listed	
RTK - U.S Massachusetts - Right To Know List	
RTK - U.S New Jersey - Right to Know Hazardous Substance List	
RTK - U.S Pennsylvania - RTK (Right to Know) List	
Canadian Regulations	

Canadian Regulations		
WHMIS Classification 2015 Carcinogen 1A. STOT SE -3. STOT RE-1		
Quartz (14808-60-7)		
Listed on the Canadian DSL (Domestic Substances List) inventory.		
Listed on the Canadian Ingredient Disclosure List		

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations (CPR) and the SDS contains all of the information required by CPR.

SAFETY DATA SHEET - NeutraFill Coated Infill (All Grades) XIF-002

PAGE 8 OF 8

16. OTHER INFORMATION, INCLUDING DATE OF PREPARATION OR LAST REVISION

Revision Date	23 Mar 2021
Version	1.2
Former Version Date	15 Mar 2021
Revision Changes	Item number changed from XIF-001 to XIF-002

National Fire Protection Association (NFPA):		
NFPA Health Hazard	1	Exposure could cause irritation by abrasion but only minor residual injury even if no treatment is given.
NFPA Flammability	0	Materials that will not burn.
NFPA Reactivity	0	Normally stable, even under fire exposure conditions

Hazardous Material Identification System (HMIS):		
Health	1	Slight Hazard - Irritation by abrasion or minor reversible injury possible
Flammability	0	Minimal Hazard
Physical	0	Minimal Hazard
PPE	Е	
Ratings are based on 0-4 rating scale, with 0 representing minimal hazard or risk, and 4 representing severe hazard or risk.		

E: Safety goggles, gloves and a particulate respirator

DISCLAIMER: The information contained herein is based on data considered accurate and is offered at no charge. No warranty is expressed or implied regarding the accuracy of this data. Liability is expressly disclaimed for loss or injury arising out of use of this information or the use of any materials designated.



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Safety Data Sheet

PE-51

Section 1. Identification	
GHS product identifier	PE-51
Other means of identification	Not available
Propduct type	Liquid
Relevant identified uses of the subs	stance or mixture and uses advised against
	Not applicable
Suppliers details	Zeofill Inc.
	4401 Etiwanda Acenue, Unit C
	Jurupa Valley, CA 91752
	(888) 926-4785
Product Code:	
Validation Date:	2/20/2018
Print Date:	2/20/2018
In case of emergency:	(888) 926-4785

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 SDS contains valuable information critical to the safe handling and proper use of the product. This SDS should be retained and available for employees and other users of this product.
Classification of the substance or	NOT Classified
mixture	
GHS label elements	
Hazard Pictograms	None
Signal Word:	No signal Word
Hazard Statement:	No known significant effects or critical hazards.
Precautionary statements	
Prevention	Not Applicable
Response	Not Applicable
Storage	Not Applicable
Disposal	Not Applicable
Hazards not otherwise classified	None Known

Section 3. Composition/information on ingredients

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

Substance/mixture	Mixture		
Other means of identification	Not Applicable		
CAS number/other identifiers			
CAS number	Not Applicable		
Product code			
Ingredient name		CAS number	%
Water		7732-18-5	5-80
Muntant Bacteria Strains		NA	1-10
Nonylphenol Ethoxylate		9016-45-9	1-10

Any concentration shown as a range is to protect confidentiality or is due to batch variation

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.

Section 4. First aid	measures
Eye contact	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.
Inhalation	Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur. In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.
Skin contact	Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. 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

Indication of immediate medical att	ention and special treatment needed if necessary
Notes to physician	No specific treatment. Treat systomatically. Contact poison treatment specialist immediately if
	large quantities have been ingested or inhaled.
Most important symtoms/effects, a	cute and delayed
Potential acute health effects	
Eye contact	No known significant effects or critical hazards.
Inhalation	No known significant effects or critical hazards
Skin contact	No known significant effects or critical hazards.
Ingestion	No known significant effects or critical hazards
Over-exposure signs/symptoms	
Eye contact	No specific data Page 2 of 9

Section 4. First aid measures

Inhalation	No specific data.
Skin contact	No known significant effects or critical hazards.
Ingestion	No known significant effects or critical hazards
Indication of immediate medical att	ention and special treatment needed, if necessary
Notes to physician	In case of inhalation of decomposition products in a fire, symptoms may be delayed.
	The exposed person may need to be kept under medical surveillance for 48 hours
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			
Extinguishing media			
Suitable extinguishing media	Use an extinguishing agent suitable for the surrounding fire.		
Unsuiable extinguishing media	None known		
Specific hazards arising from the chemical	In a fire or if heated, a pressure increase will occur and the container may burst.		
Hazardous thermal decomposition	Decomposition products may include the following materials:		
products	Carbon dioxide, carbon monoxide, nitrogen oxides		
Special protective action for fire	Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire.		
fighters	No action shall be taken involving any personal risk or without suitable training		

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

Section 6. Accidental release measures			
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. Do not breath vapor or		
	mist. Provide adequate ventilation. Wear appropriate respirator when ventilation		
	is inadequate. Put on appropriate personal protective equipment		
For emergency responders	If specialised 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 nonemergency personnel"		
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).		
Methods and materials for conta	ainment and cleaning up		
Small spill	Stop leak if without risk. Move containers from spill area. Dilute with water and mop up if water		
	soluble. Alternatively, or if water insoluble, absorb with an inert dry material and place in an		
	appropriate waste disposal container. Dispose of via a licensed waste disposal company.		
Large spill	Stop leak if without risk. Move containers from spill area. Approach release from upwind. Prevent		
	entry into sewers, water courses, basements or confined areas. Wash spillages into effluent		
	treatment plant or proceed as follows. Contain and collect spillage with non-combustible,		
	absorbent material e.g. sand, earth, vermiculite or diotomaceous earth and place in container for		
	disposal according to regulations (see Section 13). Dispose of via a licensed waste disposal		
	contractor. Contaminated absorbant material may pose the same hazard as the spilled product.		
	Note: see Section 1 for emergency contact information and Section 13 for waste disposal.		

Section 7. Handling and storage

Precautions for safe handling	
Protective measures	Put on appropriate personal protective equipment (see Section 8). 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. Remove contaminated clothing and protective equipment before entering eating areas. Do not get in eyes or on skin or clothing. Do not breathe vapor or mist. Do not ingest. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Keep away from acids. Empty containers retain product residue and can be hazardous. Do not reuse container
Advice on general occupational hygiene	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. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.
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. Separate from acids. Keep container tightly closed and sealed until ready for use. Containers that have been open must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination.
Section 8. Exposure contro	ols/personal protection
Control parameters	
Occupational exposure limits	

None	
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. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

Section 8. Exposure controls/personal protection

Individual protection measures	
Hygiene measures	Wash hands, forarms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the work 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: chemical splash goggles and/ or face shield. If inhalation hazards exist, a full-face respirator may be required instead. Recommended: splash goggles
Skin protection	
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. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated. > 8 hours (breakthrough time); butyl rubber
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	Use a properly fitted, air-purifying or air-fed respirator complying with an approved standard if a risk assessment indicates this is necessary. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.
Personal protective equipment	
(Pictograms)	

Section 9. Physical and chemical properties

Appearance	
Physical state	Liquid
Color	Green
Odor	Fresh Cut Grass
Odor Threshold	Not available
рН	7-9.5
Melting point	Not available
Boiling point	Not available
Flash point	Closed cup:>150 degrees C. (>302F) Product does not sustain cumbustion
Evaporation rate	Not available
Flammability (solid, gas)	Not available
Lower and upper explosive	Not available
(flammable) limits	
Vapor pressure	Not available
Vapor density	Not available
Relative density	1
Solubility	Easily soluble in the following materials: cold water and hot water
Partition coefficient:	Not available
n-octane/water	
Auto-ignition temperature	Not available
Decomposition temperature	Not available
Viscosity	Not available
Section 10. Stability and rea	activity
Reactivity	No specific test data related to reactivity available for this product or its ingredients.
Chemical stability	This product is stable
Possibility of hazardous reactions	Under normal conditions of storage and use, hazardous reactions will not occur.

Conditions to avoid No specific data Incompatible materials

Reactive or incompatible with the following materials: acids Hazardous decomposition products Under normal conditions of storage and use, hazardous decomposition products should not be produced.

Section 11. Toxicological information

Information on toxicological effects

Acute toxicity					
Product/ingredient name	Result	Species	Dose	Exposure	
Nonylphenol Ethoxylate	LD50 Oral	Rat	1378 mg/kg		
	LD50 Dermal	Rabbit	2 g/kg		
Irritation/Corrosion					
Product/ingredient name	Result	Species	Score	Exposure	Observation

Section 11. Toxicological information

Sensitization		
Not available		
Mutangenicity		
Not available		
Carcinogenicity		
Not available		
Classification		
Reproductive toxicity		
Not available		
Tertogenicity		
Not available		
Specific target organ toxicity (single	<u>exposure)</u>	
Not available		
Specific target organ toxicity (repeat	ed exposure)	
Not available		
Aspiration hazard		
Not available		
Information on the likely routes of	Routes of entry anticipated: O	ral, Dermal, Inhalation
exposure		
Potential acute health effects		
Eye contact	No known significant effects of	r critical hazards
Inhalation	No known significant effects of	r critical hazards
Skin contact	No known significant effects of	r critical hazards
Ingestion	No known significant effects of	r critical hazards
Symptoms related to the physical, ch	nemical and toxicological chara	<u>icteristics</u>
Eye contact	Not available.	
Inhalation	Not available.	
Skin contact	Not available.	
Ingestion	Not available.	
Delayed and immediate effects and	also chronic effects from short	and long term exposur
Short term exposure		
Potential immediate effects	Not available.	
Potential delayed effects	Not available.	
Long term exposure		
Potential immediate effects	Not available.	
Potential delayed effects	Not available.	
Potential chronic health effects	Not available.	
General	No known significant effects of	r critical hazards
Carcinogenicity	No known significant effects of	r critical hazards
Mutagenicity	No known significant effects of	r critical hazards
leratogenicity	No known significant effects of	r critical hazards
Developmental effects	No known significant effects of	r critical hazards
Fertility effects	No known significant effects of	r critical hazards
Numerical measures of toxicity		
Acute toxicity estimates		
Route	AIE Value	
Uldi	Z9Z4.1 Mg/Kg	

Section 12. Ecological information **Toxicity** None Persistence and degradability Not available **Bioaccumulative potential** Product/ingredient name LogP BCF Potential **Mobility in soil** Soil/water partition coefficient (Koc) Not available No known significant effects or critical hazards Other adverse effects Section 13. Disposal considerations **Disposal methods** The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should at all times 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. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. 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. Transportation information

	DOT Classification
UN number	Not regulated
UN proper shipping name	
Transport hazard class(es)	
Packing group	
Environmental hazards	no
Additional information	

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.

Section 15. Regulatory information

• •						
U.S. Federal regulations	Not listed					
Clean Air Act Section 112 (b)	Not listed					
Hazardous Air Pollutants (HAPs)						
Clean Air Act Section 602 Class I	Not listed					
Substances						
Clean Air Act Section 602 Class II	Not listed					
Substances						
DEA List I Chemicals (Precursor	Not listed					
Chemicals)						
DEA List II Chemicals (Precursor	Not listed					
Chemicals)						
<u>SARA 302/304</u>						
Composition/information on	No products found					
ingredients						
SARA 304 RQ	Not applicable					
<u>SARA 311/312</u>						
Classification	No products found					
Composition/information on ingree	<u>dients</u>					
Name	%	Fire	Sudden	Reactive	Immediate	Delayed (cronic) health
		Hazard	release of		(acute)	hazard
			pressure		health	
					hazard	
None						
		1	1	1	1	

SARA 313

	Product name	CAS number	%
None			

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

Pennsylvania

None