

SAFETY DATA SHEET

	1. Product and Company Iden	tification
Product identifier	ccss	
Other means of identification	Not available	
Recommended use	Modelling Clay	
Recommended restrictions	None known.	
Manufacturer information	Tucker's Pottery Supplies Inc., Cone Art Kilns Inc. 15 West Pearce Street Richmond Hill, ON L4B 1H6 CA Phone: Toll Free 1-800-304-6185 Phone: 905-889-7705 Emergency Phone Number: 613-996-6666 (0	CANUTEC)
Supplier	See above.	
	2. Hazards Identification	on
Physical hazards	Not classified.	
Health hazards	Carcinogenicity	Category 1A
	Specific target organ toxicity, repeated exposure	Category 1
Environmental hazards	Not classified.	
WHMIS 2015 defined hazards	Not classified	
Label elements		
Signal word	Danger	
Hazard statement	May cause cancer. Causes damage to organ	ns through prolonged or repeated exposure.
Precautionary statement	,	
Prevention	and understood. Wear protective gloves/prot	ot handle until all safety precautions have been read ective clothing/eye protection/face protection. Do not ash thoroughly after handling. Do not eat, drink or
Response	IF exposed or concerned: Get medical advice/attention. Get medical advice/attention if you feel unwell.	
Storage	Store locked up.	
Disposal	Dispose of contents/container in accordance	with local/regional/national/international regulations.
WHMIS 2015: Health Hazard(s) not otherwise classified (HHNOC)	None known	
WHMIS 2015: Physical Hazard(s) not otherwise classified (PHNOC)	None known	
Hazard(s) not otherwise classified (HNOC)	None known.	
Supplemental information	None.	
	3. Composition/Information on	Ingredients

Mixture

Chemical name	Common name and synonyms	CAS number	%
Kaolin		1332-58-7	51
Crystalline silica		14808-60-7	30
Nepheline syenite		37244-96-5	4

Chemical name	Common name and synonyms	CAS number	%
Cristobalite		14464-46-1	2
Feldspar		68476-25-5	2
Kaolinite		1318-74-7	2
Silica		7631-86-9	2
Titanium oxide		13463-67-7	2

All concentrations are in percent by weight unless ingredient is a gas. Gas concentrations are in percent by volume.

	4. First Aid Measures	
Inhalation	If symptoms develop move victim to fresh air. If symptoms persist, obtain medical attention.	
Skin contact	Flush with cool water. Wash with soap and water. Obtain medical attention if irritation persists.	
Eye contact	Flush with cool water. Remove contact lenses, if applicable, and continue flushing. Obtain medica attention if irritation persists.	
Ingestion	Rinse mouth. Do not induce vomiting. If vomiting occurs naturally, have victim lean forward to reduce risk of aspiration. Never give anything by mouth if victim is unconscious or is convulsing. Obtain medical attention.	
Most important symptoms/effects, acute and delayed	Prolonged exposure may cause chronic effects.	
Indication of immediate medical attention and special treatment needed	Provide general supportive measures and treat symptomatically. Symptoms may be delayed.	
General information	IF exposed or concerned: Get medical advice/attention. If you feel unwell, seek medical advice (show the label where possible). Ensure that medical personnel are aware of the material(s) involved and take precautions to protect themselves. Show this safety data sheet to the doctor in attendance. Avoid contact with eyes and skin. Keep out of reach of children.	
	5. Fire Fighting Measures	
Suitable extinguishing media	Water fog. Foam. Dry chemical powder. Carbon dioxide.	
Unsuitable extinguishing media	Do not use water jet as an extinguisher, as this will spread the fire.	
Specific hazards arising from the chemical	During fire, gases hazardous to health may be formed.	
Special protective equipment and precautions for firefighters	Self-contained breathing apparatus and full protective clothing must be worn in case of fire.	
Fire-fighting equipment/instructions	Use water spray to cool unopened containers.	
Specific methods	Use standard firefighting procedures and consider the hazards of other involved materials.	
General fire hazards	No unusual fire or explosion hazards noted.	
Hazardous combustion products	May include and are not limited to: Silicon tetrafluoride. Hydrofluoric acid.	
	6. Accidental Release Measures	
Personal precautions, protective equipment and emergency procedures	Keep unnecessary personnel away. Keep people away from and upwind of spill/leak. Wear appropriate protective equipment and clothing during clean-up. Ensure adequate ventilation. Loca authorities should be advised if significant spillages cannot be contained. For personal protection, see section 8 of the SDS.	
Methods and materials for containment and cleaning up	Stop the flow of material, if this is without risk. Following product recovery, flush area with water. For waste disposal, see section 13 of the SDS.	
Environmental precautions	Avoid discharge into drains, water courses or onto the ground. Do not discharge into lakes, streams, ponds or public waters.	
	7. Handling and Storage	
Precautions for safe handling	Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Keep formation of airborne dusts to a minimum. Provide appropriate exhaust ventilation at places where dust is formed. When using, do not eat, drink or smoke. Avoid prolonged exposure. Wear appropriate personal protective equipment. Wash thoroughly after handling. Use good industrial hygiene practices in handling this material. When using do not eat o drink.	
Conditions for safe storage, including any incompatibilities	Store locked up. Store in original tightly closed container. Store away from incompatible materials (see Section 10 of the SDS). Keep out of reach of children.	

Occupational exposure limits

Canada. Alberta OELs (Occupational Health & Safety Code, Schedule 1, Table 2)

Components	Туре	Value	Form
Cristobalite (CAS 14464-46-1)	TWA	0.025 mg/m3	Respirable particles.
,		0.025 mg/m3	Respirable.
Crystalline silica (CAS 14808-60-7)	TWA	0.025 mg/m3	Respirable particles.
Kaolin (CAS 1332-58-7)	TWA	2 mg/m3	Respirable.
Titanium oxide (CAS 13463-67-7)	TWA	10 mg/m3	

Canada. British Columbia OELs. (Occupational Exposure Limits for Chemical Substances, Occupational Health and Safety Regulation 296/97, as amended)

Components	Туре	Value	Form
Cristobalite (CAS 14464- 46-1)	TWA	0.025 mg/m3	Respirable fraction.
Crystalline silica (CAS 14808-60-7)	TWA	0.025 mg/m3	Respirable fraction.
Kaolin (CAS 1332-58-7)	TWA	2 mg/m3	Respirable.
Kaolinite (CAS 1318-74-7)	TWA	1 mg/m3	Respirable.
Silica (CAS 7631-86-9)	TWA	4 mg/m3 1.5 mg/m3	Total Respirable.
Titanium oxide (CAS 13463-67-7)	TWA	3 mg/m3	Respirable fraction.
		10 mg/m3	Total dust.

Canada. Manitoba OELs (Reg. 217/2006, The Workplace Safety And Health Act)

Components	Туре	Value	Form
Cristobalite (CAS 14464- 46-1)	TWA	0.025 mg/m3	Respirable fraction.
Crystalline silica (CAS 14808-60-7)	TWA	0.025 mg/m3	Respirable fraction.
Kaolin (CAS 1332-58-7)	TWA	2 mg/m3	Respirable fraction.
Kaolinite (CAS 1318-74-7)	TWA	1 mg/m3	Respirable fraction.
Titanium oxide (CAS 13463-67-7)	TWA	10 mg/m3	

Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents)

Components	Туре	Value	Form
Cristobalite (CAS 14464- 46-1)	TWA	0.05 mg/m3	Respirable fraction.
Crystalline silica (CAS 14808-60-7)	TWA	0.1 mg/m3	Respirable fraction.
Kaolin (CAS 1332-58-7)	TWA	2 mg/m3	Respirable fraction.
Kaolinite (CAS 1318-74-7)	TWA	1 mg/m3	Respirable fraction.
Nepheline syenite (CAS 37244-96-5)	TWA	10 mg/m3	Total dust.
Titanium oxide (CAS 13463-67-7)	TWA	10 mg/m3	

Canada. Quebec OELs. (Ministry of Labor - Regulation Respecting the Quality of the Work Environment)

Components	Туре	Value	Form
Cristobalite (CAS 14464-46-1)	TWA	0.05 mg/m3	Total dust.
Crystalline silica (CAS 14808-60-7)	TWA	0.1 mg/m3	Respirable dust.
Kaolin (CAS 1332-58-7)	TWA	5 mg/m3	Respirable dust.
Silica (CAS 7631-86-9)	TWA	6 mg/m3	Respirable dust.
Titanium oxide (CAS 13463-67-7)	TWA	10 mg/m3	Total dust.

Components	Туре	Value	Form
Cristobalite (CAS 14464-46-1)	PEL	0.05 mg/m3	Respirable dust.
Crystalline silica (CAS 14808-60-7)	PEL	0.05 mg/m3	Respirable dust.
Kaolin (CAS 1332-58-7)	PEL	5 mg/m3 15 mg/m3	Respirable fraction. Total dust.
Titanium oxide (CAS 13463-67-7)	PEL	15 mg/m3	Total dust.
US. OSHA Table Z-3 (29 CF Components	R 1910.1000) Type	Value	Form
Cristobalite (CAS	TWA	0.05 mg/m3	Respirable.
14464-46-1)		1.2 mppcf	Respirable.
Crystalline silica (CAS 14808-60-7)	TWA	0.1 mg/m3	Respirable.
,		2.4 mppcf	Respirable.
Kaolin (CAS 1332-58-7)	TWA	5 mg/m3 15 mg/m3 50 mppcf 15 mppcf	Respirable fraction. Total dust. Total dust. Respirable fraction.
Silica (CAS 7631-86-9)	TWA	0.8 mg/m3 20 mppcf	
Titanium oxide (CAS 13463-67-7)	TWA	5 mg/m3	Respirable fraction.
		15 mg/m3	Total dust.
		50 mppcf	Total dust.
		15 mppcf	Respirable fraction.
US. ACGIH Threshold Limit Components	t Values Type	Value	Form
Cristobalite (CAS 14464- 46-1)	TWA	0.025 mg/m3	Respirable fraction.
Crystalline silica (CAS 14808-60-7)	TWA	0.025 mg/m3	Respirable fraction.
Kaolin (CAS 1332-58-7)	TWA	2 mg/m3	Respirable fraction.
Kaolinite (CAS 1318-74-7)	TWA	1 mg/m3	Respirable fraction.
Titanium oxide (CAS 13463-67-7)	TWA	10 mg/m3	
US. NIOSH: Pocket Guide to Components	o Chemical Hazards Type	Value	Form
	1,900	Value	
· · · ·	Τ\Λ/Δ	$0.05 mg/m^{2}$	Respirable duct
Crystalline silica (CAS 14808-60-7)	TWA	0.05 mg/m3	Respirable dust.
Crystalline silica (CAS 14808-60-7) Kaolin (CAS 1332-58-7)	TWA	5 mg/m3 10 mg/m3	Respirable dust. Respirable. Total
Crystalline silica (CAS 14808-60-7) Kaolin (CAS 1332-58-7)		5 mg/m3	Respirable.
Crystalline silica (CAS 14808-60-7) Kaolin (CAS 1332-58-7) Silica (CAS 7631-86-9) ogical limit values osure guidelines	TWA TWA No biological exposure limits noted for the ingr Occupational exposure to nuisance dust (total	5 mg/m3 10 mg/m3 6 mg/m3 redient(s).	Respirable. Total
Crystalline silica (CAS 14808-60-7) Kaolin (CAS 1332-58-7) Silica (CAS 7631-86-9) ogical limit values	TWA TWA No biological exposure limits noted for the ingr Occupational exposure to nuisance dust (total should be monitored and controlled.	5 mg/m3 10 mg/m3 6 mg/m3 redient(s). and respirable) and re	Respirable. Total spirable crystalline silica
Crystalline silica (CAS 14808-60-7) Kaolin (CAS 1332-58-7) Silica (CAS 7631-86-9) ogical limit values osure guidelines ropriate engineering	TWA TWA No biological exposure limits noted for the ingr Occupational exposure to nuisance dust (total	5 mg/m3 10 mg/m3 6 mg/m3 redient(s). and respirable) and re ges per hour) should b , use process enclosur rrne levels below recon	Respirable. Total spirable crystalline silica e used. Ventilation rates es, local exhaust ventilation mended exposure limits.
Crystalline silica (CAS 14808-60-7) Kaolin (CAS 1332-58-7) Silica (CAS 7631-86-9) ogical limit values osure guidelines ropriate engineering trols	TWA TWA No biological exposure limits noted for the ingr Occupational exposure to nuisance dust (total should be monitored and controlled. Good general ventilation (typically 10 air chang should be matched to conditions. If applicable, or other engineering controls to maintain airbo	5 mg/m3 10 mg/m3 6 mg/m3 redient(s). and respirable) and re ges per hour) should b , use process enclosur rrne levels below recon	Respirable. Total spirable crystalline silica e used. Ventilation rates es, local exhaust ventilation mended exposure limits.
Crystalline silica (CAS 14808-60-7) Kaolin (CAS 1332-58-7) Silica (CAS 7631-86-9) ogical limit values osure guidelines ropriate engineering trols	TWA TWA No biological exposure limits noted for the ingr Occupational exposure to nuisance dust (total should be monitored and controlled. Good general ventilation (typically 10 air chang should be matched to conditions. If applicable, or other engineering controls to maintain airbo exposure limits have not been established, ma	5 mg/m3 10 mg/m3 6 mg/m3 redient(s). and respirable) and re ges per hour) should b , use process enclosur rrne levels below recon	Respirable. Total spirable crystalline silica e used. Ventilation rates es, local exhaust ventilation mended exposure limits.
Crystalline silica (CAS 14808-60-7) Kaolin (CAS 1332-58-7) Silica (CAS 7631-86-9) ogical limit values osure guidelines ropriate engineering trols	TWA TWA No biological exposure limits noted for the ingr Occupational exposure to nuisance dust (total should be monitored and controlled. Good general ventilation (typically 10 air chang should be matched to conditions. If applicable, or other engineering controls to maintain airbo exposure limits have not been established, ma , such as personal protective equipment	5 mg/m3 10 mg/m3 6 mg/m3 redient(s). and respirable) and re ges per hour) should b , use process enclosur rrne levels below recon	Respirable. Total spirable crystalline silica e used. Ventilation rates es, local exhaust ventilation mended exposure limits.
Crystalline silica (CAS 14808-60-7) Kaolin (CAS 1332-58-7) Silica (CAS 7631-86-9) ogical limit values osure guidelines ropriate engineering trols vidual protection measures Eye/face protection	TWA TWA No biological exposure limits noted for the ingr Occupational exposure to nuisance dust (total should be monitored and controlled. Good general ventilation (typically 10 air chang should be matched to conditions. If applicable, or other engineering controls to maintain airbo exposure limits have not been established, ma , such as personal protective equipment	5 mg/m3 10 mg/m3 6 mg/m3 redient(s). and respirable) and re ges per hour) should b , use process enclosur rme levels below recon aintain airborne levels t	Respirable. Total spirable crystalline silica e used. Ventilation rates es, local exhaust ventilation mended exposure limits. o an acceptable level.

Respiratory protection	Where exposure guideline levels may be exceeded, use an approved NIOSH respirator. Respirator should be selected by and used under the direction of a trained health and safety professional following requirements found in OSHA's respirator standard (29 CFR 1910.134), CAN/CSA-Z94.4 and ANSI's standard for respiratory protection (Z88.2).
Thermal hazards	Not applicable.
General hygiene considerations	Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants. When using do not eat or drink.

	9. Physical and Chemical Properties
Appearance	Moist mud
Physical state	Solid.
Form	Solid.
Color	grey
Odor	Earthy
Odor threshold	Not available.
рН	Not available.
Melting point/freezing point	Not available.
Initial boiling point and boiling range	Not available.
Pour point	Not available.
Specific gravity	Not available.
Partition coefficient (n-octanol/water)	Not available.
Flash point	Not available.
Evaporation rate	Not available.
Flammability (solid, gas)	Not available.
Upper/lower flammability or exp	losive limits
Flammability limit - lower (%)	Not available.
Flammability limit - upper (%)	Not available.
Explosive limit - lower (%)	Not available.
Explosive limit - upper (%)	Not available.
Vapor pressure	Not available.
Vapor density	Not available.
Relative density	Not available.
Solubility(ies)	Not available.
Auto-ignition temperature	Not available.
Decomposition temperature	Not available.
Viscosity	Not available.
Other information	
Explosive properties	Not explosive.
Oxidizing properties	Not oxidizing.

10. Stability and Reactivity

Reactivity	This product may react with strong oxidizing agents.
Possibility of hazardous reactions	No dangerous reaction known under conditions of normal use.
Chemical stability	Material is stable under normal conditions.
Conditions to avoid	Do not mix with other chemicals.
Incompatible materials	Powerful oxidizers. Chlorine.
Hazardous decomposition products	May include and are not limited to: Hydrofluoric acid. Silicon tetrafluoride.

11. Toxicological Information

Routes of exposure

Inhalation. Eye, Skin contact, Inhalation, Ingestion.

Information on likely routes of	of exposure	
Ingestion	May cause stomach distress, nausea	a or vomiting.
Inhalation	Prolonged inhalation may be harmful.	
Skin contact	No adverse effects due to skin contact are expected.	
Eye contact	Direct contact with eyes may result in mechanical irritation.	
Symptoms related to the	Direct contact with eyes may cause temporary irritation.	
physical, chemical and toxicological characteristics		
Information on toxicological	effects	
Acute toxicity		
Components	Species	Test Results
Cristobalite (CAS 14464-46-1)		
Acute		
Dermal		
LD50	Rabbit	> 5000 mg/kg, 24 Hours, ECHA
		> 2000 mg/kg, 24 Hours
Inhalation		
LC50	Not available	
Oral		
LD50	Mouse	> 15000 mg/kg, HSDB
	Rat	> 22500 mg/kg, HSDB
Crystalline silica (CAS 14808-6	0-7)	
Acute		
Dermal		
LD50	Not available	
Inhalation	Net a state	
LC50	Not available	
Oral	Det	
LD50	Rat	500 mg/kg, HSDB, IV only
Feldspar (CAS 68476-25-5)		
Acute		
Dermal LD50	Not available	
Inhalation		
LC50	Not available	
Oral		
LD50	Not available	
Kaolin (CAS 1332-58-7)		
Acute		
Dermal		
LD50	Rat	> 5000 mg/kg, HSDB
Inhalation		
LC50	Not available	
Oral		
LD50	Rat	> 5000 mg/kg, HSDB
		14900 mg/kg, Gelest
Nepheline syenite (CAS 37244	-96-5)	
Acute	·	
Dermal		
LD50	Not available	
Inhalation		
LC50	Not available	
Oral		
LD50	Not available	

Components	Species	Test Results
Silica (CAS 7631-86-9)		
Acute Dermal		
LD50	Rabbit	> 2000 mg/kg
		> 2000 mg/kg, 24 Hours
Inhalation		2000 mg/kg, 21 noulo
LC50	Not available	
	Rat	> 2.1 mg/L, 4 Hours
Oral		
LD50	Mouse	> 3160 mg/kg
	Rat	> 5000 mg/kg
		> 3300 mg/kg
Titanium oxide (CAS 13463-67-7)		5 5 5
Acute		
Dermal		
LD50	Not available	
Inhalation		
LC50	Rat	> 6.8 mg/L, 4 Hours, ECHA
		> 3.6 mg/l/4h, ECHA
		> 3.6 mg/L, 4 Hours, ECHA
		> 2.3 mg/L, 4 Hours, ECHA
		5.1 mg/L, 4 Hours, ECHA
		3.4 mg/L, 4 Hours, ECHA
Oral		
LD50	Mouse	> 5000 mg/kg, ECHA
	Rat	> 25000 mg/kg, ECHA
		> 11000 mg/kg, ECHA
		> 5000 mg/kg, ECHA
		> 2000 mg/kg, ECHA
Skin corrosion/irritation	Prolonged skin contact may cause temporary irrita	tion.
Exposure minutes	Not available.	
Erythema value	Not available.	
Oedema value	Not available.	
Serious eye damage/eye irritation	Direct contact with eyes may cause temporary irrit	ation.
Corneal opacity value	Not available.	
Iris lesion value	Not available.	
Conjunctival reddening value	Not available.	
Conjunctival oedema value	Not available.	
Recover days	Not available.	
Respiratory or skin sensitization		
Canada - Alberta OELs: Irrit		
Calcium oxide (CAS 130 Cristobalite (CAS 14464 Titanium oxide (CAS 134	46-1) Irritant	
Respiratory sensitization	Not a respiratory sensitizer.	
Skin sensitization	This product is not expected to cause skin sensitiz	ation.
Mutagenicity	No data available to indicate product or any compo mutagenic or genotoxic.	onents present at greater than 0.1% are

May cause cancer.

Carcinogenicity	May cause cancer.	
	inhaled from occupational sou overall evaluation, IARC notec circumstances studied. Carcin crystalline silica or on external polymorphs." (IARC Monogra	al Agency for Research on Cancer) concluded that crystalline silica rces can cause lung cancer in humans. However in making the d that "carcinogenicity was not detected in all industrial ogenicity may be dependent on inherent characteristics of the factors affecting its biological activity or distribution of its phs on the evaluation of the carcinogenic risks of chemicals to and organic fibres, 1997, Vol. 68, IARC, Lyon, France.)
	that the main effect in humans "There is sufficient information persons with silicosis (and, ap quarries and in the ceramic ind the cancer risk" (SCOEL SU According to the current state assured by respecting the exis Occupational exposure to resp controlled. High concentrations of pigmer	Scientific Committee on Occupational Exposure Limits) concluded of the inhalation of respirable crystalline silica dust is silicosis. to conclude that the relative risk of lung cancer is increased in parently, not in employees without silicosis exposed to silica dust in dustry). Therefore, preventing the onset of silicosis will also reduce M Doc 94-final, June 2003) of the art, worker protection against silicosis can be consistently sting regulatory occupational exposure limits. birable dust and respirable crystalline silica should be monitored and nt-grade (powdered) and ultrafine titanium dioxide (titanium oxide) tract cancer in rats exposed by inhalation and intratracheal
ACGIH Carcinogens		
Cristobalite (CAS 14464- Crystalline silica (CAS 14 Canada - Alberta OELs: Car	808-60-7)	A2 Suspected human carcinogen. A2 Suspected human carcinogen.
Cristobalite (CAS 14464- Crystalline silica (CAS 14 Canada - Manitoba OELs: ca	46-1) 808-60-7)	Suspected human carcinogen. Suspected human carcinogen.
SILICA, CRYSTALLINE	ALPHAQUARTZ,	Suspected human carcinogen.
FRACTION (CAS 14464-	CRISTOBALITE, RESPIRABLE 46-1)	Suspected human carcinogen.
Canada - Quebec OELs: Car	• • •	
-Cristobalite (CAS 14464 Crystalline silica (CAS 14 IARC Monographs. Overall E	,	Detected carcinogenic effect in animals. Suspected carcinogenic effect in humans.
Cristobalite (CAS 14464- Crystalline silica (CAS 14 Hydrous magnesium silic	808-60-7)	Volume 68, Volume 100C 1 Carcinogenic to humans. Volume 68, Volume 100C 1 Carcinogenic to humans. Volume 42, Supplement 7, Volume 93 - 3 Not classifiable as to carcinogenicity to humans. Volume 93 - 2B Possibly carcinogenic to humans.
Silica (CAS 7631-86-9) Titanium oxide (CAS 13463-67-7) US - California Proposition 65 - CRT: Listed date/Carcinog		Volume 68 - 3 Not classifiable as to carcinogenicity to humans. Volume 47, Volume 93 - 2B Possibly carcinogenic to humans.
Crystalline silica (CAS 14	-	
Titanium oxide (CAS 134	63-67-7)	
Cristobalite (CAS 14464-	ens: Anticipated carcinogen	Reasonably Anticipated to be a Human Carcinogen.
US NTP Report on Carcinog	,	Reasonably Anticipated to be a Human Carenogen.
Cristobalite (CAS 14464- Crystalline silica (CAS 14 US. OSHA Specifically Regu		Known To Be Human Carcinogen. Known To Be Human Carcinogen. I 0.1001-1050)
Cristobalite (CAS 14464- Crystalline silica (CAS 14	,	Cancer Cancer
Reproductive toxicity		o cause reproductive or developmental effects.
Teratogenicity	Not available.	· · · · · · · · · · · · · · · · · · ·
Specific target organ toxicity - single exposure	Not classified.	
Specific target organ toxicity - repeated exposure	Causes damage to organs three	ough prolonged or repeated exposure.
Aspiration hazard	Not an aspiration hazard.	
Chronic effects	Prolonged exposure may cause Prolonged or repeated exposure	rre to fine airborne crystalline silica dust may cause severe scarring silicosis. Early symptoms of silicosis include cough, mucous
#28084	•	s 8 of 12 lesue date 20. Eebruary 2018

		12. Ecological Information		
Ecotoxicity	See below			
Ecotoxicological data Components		Species	Test Results	
Silica (CAS 7631-86-9)				
Algae	IC50	Algae	440 mg/L, 72 Hours	
Crustacea	EC50	Daphnia	7600 mg/L, 48 Hours	
Titanium oxide (CAS 13463-67-7))			
Aquatic				
Crustacea	EC50	Water flea (Daphnia magna)	> 1000 mg/L, 48 hours	
Fish	LC50	Mummichog (Fundulus heteroclitus)	> 1000 mg/L, 96 hours	
Persistence and degradability	No data is av	ailable on the degradability of this produc	et.	
Bioaccumulative potential	No data available.			
Mobility in soil	No data available.			
Mobility in general	Not available.			
Other adverse effects		erse environmental effects (e.g. ozone do docrine disruption, global warming potent		
		13. Disposal Considerations		
Disposal instructions	contents/cont	Collect and reclaim or dispose in sealed containers at licensed waste disposal site. Dispose of contents/container in accordance with local/regional/national/international regulations.		
Local disposal regulations	-	ccordance with all applicable regulations.		
Hazardous waste code	disposal com	The waste code should be assigned in discussion between the user, the producer and the waste disposal company.		
Waste from residues / unused products	Dispose of in accordance with local regulations. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner (see: Disposal instructions).			
Contaminated packaging	Since emptied containers may retain product residue, follow label warnings even after container is emptied. Empty containers should be taken to an approved waste handling site for recycling or disposal.			
		14. Transport Information		
Transport of Dangerous Goods (TDG) Proof of Classification		e with Part 2.2.1 (SOR/2014-152) of the with Part 2.2.1 (SOR/2014-152) of the we certify that the classification of this pr	Transportation of Dangerous Goods oduct is correct as of the SDS date of issue	
U.S. Department of Transportat Not regulated as dangerous g Transportation of Dangerous G	goods.	anada)		
Not regulated as dangerous	goods.			
	goods.	15. Regulatory Information		
Not regulated as dangerous	This product I		ne hazard criteria of the HPR and the SDS	
	This product I contains all th	has been classified in accordance with the information required by the HPR.	ne hazard criteria of the HPR and the SDS	
Not regulated as dangerous of Canadian federal regulations Canada CEPA Schedule I: I Aluminum oxide (CAS 13	This product I contains all th Listed substanc 344-28-1)	has been classified in accordance with the information required by the HPR. ce Listed.	ne hazard criteria of the HPR and the SDS	
Not regulated as dangerous of Canadian federal regulations Canada CEPA Schedule I: I Aluminum oxide (CAS 13 Cristobalite (CAS 14464	This product I contains all th Listed substanc 344-28-1) -46-1)	has been classified in accordance with the information required by the HPR. ce Listed. Listed.	ne hazard criteria of the HPR and the SDS	
Not regulated as dangerous of Canadian federal regulations Canada CEPA Schedule I: I Aluminum oxide (CAS 13 Cristobalite (CAS 14464 Hydrous magnesium silio	This product I contains all th Listed substanc 344-28-1) -46-1) cate (CAS 14807	has been classified in accordance with the information required by the HPR. ce Listed. Listed. 7-96-6) Listed.	ne hazard criteria of the HPR and the SDS	
Not regulated as dangerous of Canadian federal regulations Canada CEPA Schedule I: I Aluminum oxide (CAS 13 Cristobalite (CAS 14464 Hydrous magnesium silio Kaolin (CAS 1332-58-7) Magnesium oxide (CAS	This product I contains all th Listed substanc 344-28-1) -46-1) cate (CAS 14807 1309-48-4)	has been classified in accordance with the information required by the HPR. ce Listed. Listed.	ne hazard criteria of the HPR and the SDS	
Not regulated as dangerous of Canadian federal regulations Canada CEPA Schedule I: I Aluminum oxide (CAS 13 Cristobalite (CAS 14464 Hydrous magnesium silid Kaolin (CAS 1332-58-7) Magnesium oxide (CAS Mica group minerals (CA	This product I contains all th Listed substanc 344-28-1) -46-1) cate (CAS 14807 1309-48-4) AS 12001-26-2)	has been classified in accordance with the information required by the HPR. ce Listed. 7-96-6) Listed. Listed. Listed. Listed. Listed. Listed. Listed. Listed.	ne hazard criteria of the HPR and the SDS	
Not regulated as dangerous of Canadian federal regulations Canada CEPA Schedule I: I Aluminum oxide (CAS 13 Cristobalite (CAS 14464 Hydrous magnesium silit Kaolin (CAS 1332-58-7) Magnesium oxide (CAS Mica group minerals (CA Titanium oxide (CAS 132	This product I contains all th Listed substand 344-28-1) -46-1) cate (CAS 14807 1309-48-4) AS 12001-26-2) 463-67-7)	has been classified in accordance with the information required by the HPR. ce Listed. 7-96-6) Listed. Listed. Listed. Listed. Listed. Listed. Listed. Listed.	ne hazard criteria of the HPR and the SDS	
Not regulated as dangerous of Canadian federal regulations Canada CEPA Schedule I: I Aluminum oxide (CAS 13 Cristobalite (CAS 14464 Hydrous magnesium silite Kaolin (CAS 1332-58-7) Magnesium oxide (CAS Mica group minerals (CA Titanium oxide (CAS 134 Canada DSL Challenge Sut	This product I contains all th Listed substanc 344-28-1) -46-1) cate (CAS 14807 1309-48-4) AS 12001-26-2) 463-67-7) bstances: Lister	has been classified in accordance with the information required by the HPR. ce Listed. 7-96-6) Listed. Listed. Listed. Listed. Listed. Listed. Listed. Listed. Listed. Listed.	ne hazard criteria of the HPR and the SDS	
Not regulated as dangerous (Canadian federal regulations Canada CEPA Schedule I: I Aluminum oxide (CAS 13 Cristobalite (CAS 14464 Hydrous magnesium silite Kaolin (CAS 1332-58-7) Magnesium oxide (CAS Mica group minerals (CA Titanium oxide (CAS 134 Canada DSL Challenge Sut Cristobalite (CAS 14464	This product I contains all th Listed substanc 344-28-1) -46-1) cate (CAS 14807 1309-48-4) AS 12001-26-2) 463-67-7) bstances: Listed -46-1)	has been classified in accordance with the information required by the HPR. ce Listed. 7-96-6) Listed. Listed. Listed. Listed. Listed. Listed. Listed. Listed.	ne hazard criteria of the HPR and the SDS	
Not regulated as dangerous (Canadian federal regulations Canada CEPA Schedule I: I Aluminum oxide (CAS 13 Cristobalite (CAS 14464 Hydrous magnesium silite Kaolin (CAS 1332-58-7) Magnesium oxide (CAS Mica group minerals (CA Titanium oxide (CAS 134 Canada DSL Challenge Sut	This product l contains all th Listed substand 344-28-1) -46-1) cate (CAS 14807 1309-48-4) AS 12001-26-2) 463-67-7) bstances: Listed -46-1) 4808-60-7)	has been classified in accordance with the information required by the HPR. ce Listed. 7-96-6) Listed. Listed. Listed. Listed. Listed. Listed. Listed. Listed. Listed. Listed.	he hazard criteria of the HPR and the SDS	
Not regulated as dangerous (Canadian federal regulations Canada CEPA Schedule I: I Aluminum oxide (CAS 13 Cristobalite (CAS 14464 Hydrous magnesium silite Kaolin (CAS 1332-58-7) Magnesium oxide (CAS Mica group minerals (CA Titanium oxide (CAS 134 Canada DSL Challenge Sut Cristobalite (CAS 14464 Crystalline silica (CAS 14	This product l contains all th Listed substanc 344-28-1) -46-1) cate (CAS 14807 1309-48-4) AS 12001-26-2) 463-67-7) bstances: Listed -46-1) 4808-60-7) s List (Second I	has been classified in accordance with the information required by the HPR. ce Listed. 7-96-6) Listed. Listed. Listed. Listed. Listed. Listed. Listed. Listed. Listed. Listed.	he hazard criteria of the HPR and the SDS	
Not regulated as dangerous (Canadian federal regulations Canada CEPA Schedule I: I Aluminum oxide (CAS 13 Cristobalite (CAS 14464 Hydrous magnesium silite Kaolin (CAS 1332-58-7) Magnesium oxide (CAS Mica group minerals (CA Titanium oxide (CAS 134 Canada DSL Challenge Sut Cristobalite (CAS 14464 Crystalline silica (CAS 14 Canada Priority Substance Aluminum oxide (CAS 134	This product l contains all th Listed substanc 344-28-1) -46-1) cate (CAS 14807 1309-48-4) AS 12001-26-2) 463-67-7) bstances: Lister -46-1) 4808-60-7) s List (Second I 344-28-1) cate (CAS 14807	has been classified in accordance with the information required by the HPR. ce Listed. 7-96-6) Listed. Listed. Listed. Listed. Listed. d substance Listed. Listed. Listed. Listed. Listed. Listed. Listed. Listed. Listed. Listed. Listed. Listed. Listed.	he hazard criteria of the HPR and the SDS	
Not regulated as dangerous (Canadian federal regulations Canada CEPA Schedule I: I Aluminum oxide (CAS 13 Cristobalite (CAS 14464 Hydrous magnesium silite Kaolin (CAS 1332-58-7) Magnesium oxide (CAS Mica group minerals (CA Titanium oxide (CAS 134 Canada DSL Challenge Sut Cristobalite (CAS 14464 Crystalline silica (CAS 14464 Crystalline silica (CAS 14464 Crystalline silica (CAS 14464 Chydrous magnesium silite Kaolin (CAS 1332-58-7)	This product l contains all th Listed substanc 344-28-1) -46-1) cate (CAS 14807 1309-48-4) AS 12001-26-2) 463-67-7) bstances: Listed -46-1) 4808-60-7) s List (Second I 344-28-1) cate (CAS 14807	has been classified in accordance with the information required by the HPR. ce Listed. Listed. 7-96-6) Listed. Listed	he hazard criteria of the HPR and the SDS	
Not regulated as dangerous (Canadian federal regulations Canada CEPA Schedule I: I Aluminum oxide (CAS 13 Cristobalite (CAS 14464 Hydrous magnesium silite Kaolin (CAS 1332-58-7) Magnesium oxide (CAS Mica group minerals (CA Titanium oxide (CAS 134 Canada DSL Challenge Sut Cristobalite (CAS 14464 Crystalline silica (CAS 14 Canada Priority Substance Aluminum oxide (CAS 134	This product l contains all th Listed substanc 344-28-1) -46-1) cate (CAS 14807 1309-48-4) AS 12001-26-2) 463-67-7) bstances: Lister -46-1) 4808-60-7) s List (Second I 344-28-1) cate (CAS 14807 1309-48-4)	has been classified in accordance with the information required by the HPR. ce Listed. Listed. 7-96-6) Listed. T-96-6) Listed.	he hazard criteria of the HPR and the SDS	

Export Control List (CEPA	1999, Schedule 3)	
Not listed.		
Greenhouse Gases		
Not listed.		
Precursor Control Regulati		Class A
Phosphorus (CAS 7723- WHMIS 2015 Exemptions	Not applicable	Class A
US federal regulations		s Chemical" as defined by the OSHA Hazard Communication
-	Standard, 29 CFR 1910.120	0.
	Notification (40 CFR 707, Su	opt. D)
Not regulated. CERCLA Hazardous Subst	ance List (40 CFR 302.4)	
Barium carbonate (CAS		Listed.
Barium Oxide (bao) (CA	,	Listed.
Manganese oxide (MnO	, ,	Listed.
Phosphorus (CAS 7723		Listed. A Haz. Subs.: Section 304 EHS reportable quantity
Phosphorus (CAS 7723		1 LBS
	ulated Substances (29 CFR 1	
Cristobalite (CAS 14464	-46-1)	Cancer
Crystalline silica (CAS 1		Cancer
Cristobalite (CAS 14464 Crystalline silica (CAS 1		lung effects lung effects
Cristobalite (CAS 14464		immune system effects
Crystalline silica (CAS 1		immune system effects
Cristobalite (CAS 14464		kidney effects
Crystalline silica (CAS 1	,	kidney effects
Superfund Amendments and R	•	AKA)
Hazard categories	Immediate Hazard - Yes Delayed Hazard - Yes Fire Hazard - No Pressure Hazard - No Postivity Hazard - No	
SARA 302 Extremely	Reactivity Hazard - No No	
hazardous substance SARA 311/312 Hazardous	No	
chemical		
SARA 313 (TRI reporting) Not regulated.		
Other federal regulations		
Clean Air Act (CAA) Sectio	n 112 Hazardous Air Pollutan	ts (HAPs) List
Manganese oxide (MnO		
Phosphorus (CAS 7723-		house the (10 OFR (0 100)
	n 112(r) Accidental Release F	revention (40 CFR 68.130)
Not regulated. US state regulations	See below	
5		Listed substance
Aluminum oxide (C/	Dus Substances (Director's):	Listed Substance Listed.
Barium carbonate (Listed.
Barium Oxide (bao)	(CAS 1304-28-5)	Listed.
Calcium oxide (CAS		Listed.
Hydrous magnesiur Magnesium oxide (n silicate (CAS 14807-96-6)	Listed. Listed.
Manganese oxide (MnO2) (CAS 1313-13-9)	Listed.
	s (CAS 12001-26-2)	Listed.
Phosphorus (CAS 7 Silica (CAS 7631-86		Listed. Listed.
	Safety Act: Listed substance	LIGIGU.
Barium carbonate (
Barium Oxide (bao)	(CAS 1304-28-5)	
	MnO2) (CAS 1313-13-9)	
Phosphorus (CAS 7 US - Louisiana Spill Re	porting: Listed substance	
•	MnO2) (CAS 1313-13-9)	Listed.
	, (= = = = = = = = = = = = = = = = = =	

Phosphorus (CAS 7723-14-0) Listed. US - Minnesota Haz Subs: Listed substance Aluminum oxide (CAS 1344-28-1) Listed. Barium carbonate (CAS 513-77-9) Listed. Barium Oxide (bao) (CAS 1304-28-5) Listed. Calcium oxide (CAS 1305-78-8) Listed. Cristobalite (CAS 14464-46-1) Listed. Crystalline silica (CAS 14808-60-7) Listed. Hydrous magnesium silicate (CAS 14807-96-6) Listed. Kaolin (CAS 1332-58-7) Listed. Magnesium oxide (CAS 1309-48-4) Listed. Manganese oxide (MnO2) (CAS 1313-13-9) Listed. Mica group minerals (CAS 12001-26-2) Listed. Phosphorus (CAS 7723-14-0) Listed. Silica (CAS 7631-86-9) Listed. Titanium oxide (CAS 13463-67-7) Listed. US - New Jersey RTK - Substances: Listed substance Aluminum oxide (CAS 1344-28-1) Barium carbonate (CAS 513-77-9) Barium Oxide (bao) (CAS 1304-28-5) Calcium oxide (CAS 1305-78-8) Cristobalite (CAS 14464-46-1) Crystalline silica (CAS 14808-60-7) Hydrous magnesium silicate (CAS 14807-96-6) Kaolin (CAS 1332-58-7) Magnesium oxide (CAS 1309-48-4) Manganese oxide (MnO2) (CAS 1313-13-9) Mica group minerals (CAS 12001-26-2) Phosphorus (CAS 7723-14-0) Silica (CAS 7631-86-9) Titanium oxide (CAS 13463-67-7) US - New York Release Reporting: Acutely Hazardous Substances: Listed substance Phosphorus (CAS 7723-14-0) Listed. US - North Carolina Toxic Air Pollutants: Listed substance Manganese oxide (MnO2) (CAS 1313-13-9) US - Texas Effects Screening Levels: Listed substance Aluminum oxide (CAS 1344-28-1) Listed. Barium carbonate (CAS 513-77-9) Listed. Calcium oxide (CAS 1305-78-8) Listed. Cristobalite (CAS 14464-46-1) Listed. Crystalline silica (CAS 14808-60-7) Listed. Feldspar (CAS 68476-25-5) Listed. Hydrous magnesium silicate (CAS 14807-96-6) Listed. Kaolin (CAS 1332-58-7) Listed. Magnesium oxide (CAS 1309-48-4) Listed. Manganese oxide (MnO2) (CAS 1313-13-9) Listed. Mica group minerals (CAS 12001-26-2) Listed. Nepheline syenite (CAS 37244-96-5) Listed. Phosphorus (CAS 7723-14-0) Listed. Silica (CAS 7631-86-9) Listed. Titanium oxide (CAS 13463-67-7) Listed. **US. Massachusetts RTK - Substance List** Aluminum oxide (CAS 1344-28-1) Calcium oxide (CAS 1305-78-8) Cristobalite (CAS 14464-46-1) Crystalline silica (CAS 14808-60-7) Hydrous magnesium silicate (CAS 14807-96-6) Kaolin (CAS 1332-58-7) Magnesium oxide (CAS 1309-48-4) Mica group minerals (CAS 12001-26-2) Phosphorus (CAS 7723-14-0) Silica (CAS 7631-86-9) Titanium oxide (CAS 13463-67-7) US. New Jersey Worker and Community Right-to-Know Act Aluminum oxide (CAS 1344-28-1) Barium carbonate (CAS 513-77-9) Barium Oxide (bao) (CAS 1304-28-5) Manganese oxide (MnO2) (CAS 1313-13-9)

Phosphorus (CAS 7723-14-0)

US. Pennsylvania Worker and Community Right-to-Know Law

Aluminum oxide (CAS 1344-28-1) Barium carbonate (CAS 513-77-9) Barium Oxide (bao) (CAS 1304-28-5) Calcium oxide (CAS 1305-78-8) Cristobalite (CAS 14464-46-1) Crystalline silica (CAS 14808-60-7) Hydrous magnesium silicate (CAS 14807-96-6) Kaolin (CAS 1332-58-7) Magnesium oxide (CAS 1309-48-4) Manganese oxide (MnO2) (CAS 1313-13-9) Mica group minerals (CAS 12001-26-2) Phosphorus (CAS 7723-14-0) Silica (CAS 7631-86-9) Titanium oxide (CAS 13463-67-7)

US. Rhode Island RTK

Aluminum oxide (CAS 1344-28-1) Barium carbonate (CAS 513-77-9) Barium Oxide (bao) (CAS 1304-28-5) Calcium oxide (CAS 1305-78-8) Cristobalite (CAS 14464-46-1) Crystalline silica (CAS 14808-60-7) Hydrous magnesium silicate (CAS 14807-96-6) Kaolin (CAS 1332-58-7) Magnesium oxide (CAS 1309-48-4) Mica group minerals (CAS 12001-26-2) Phosphorus (CAS 7723-14-0) Titanium oxide (CAS 13463-67-7)

US. California Proposition 65

WARNING: This product contains a chemical known to the State of California to cause cancer.

* 2

0

0

US - California Proposition 65 - CRT: Listed date/Carcinogenic substance

-	•
Crystalline silica (CAS 14808-60-7)	Listed: October 1, 1988
Titanium oxide (CAS 13463-67-7)	Listed: September 2, 201

HEALTH

FLAMMABILITY

PHYSICAL HAZARD

20-February-2018

document.

Inventory status

Country(s) or region	Inventory name On in	ventory (yes/no)*
Canada	Domestic Substances List (DSL)	No
Canada	Non-Domestic Substances List (NDSL)	Yes
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	Yes
*A "Yes" indicates that all compor	nents of this product comply with the inventory requirements administered by the governing co	ountry(s)

LEGEND	
Severe	4
Serious	3
Moderate	2
Slight	1
Minimal	0

Disclaimer

Issue date Version # Effective date

Prepared by

#28984

Other information

PERSONAL PROTECTION	X		
available. Informat and reliable. While some cases data is beyond control of according to the re expressed or impli	tion contained here e every effort has b is not available and the supplier, it is a equirements of all a ied, is made and s	ein was obtained from s been made to ensure ful d is so stated. Since cor ssumed that users of th applicable legislation ar upplier will not be liable	knowledge and experience currently sources considered technically accur- ill disclosure of product hazards, in nditions of actual product use are his material have been fully trained and regulatory instruments. No warran e for any losses, injuries or r reliance on any information contained
20-February-2018	,		
20100100172010	•		

For an updated SDS, please contact the supplier/manufacturer listed on the first page of the

0

Λ

2

2011

16. Other Information

Dell Tech Laboratories Ltd. Phone: (519) 858-5021