

SAFETY DATA SHEET

1. Identification

Material name: SOLARGARD 6083 WHITE 5 GL Material: 1120700005P

Recommended use and restriction on use

Recommended use: Coatings Restrictions on use: Not known.

Manufacturer/Importer/Supplier/Distributor Information

Tremco Incorporated 3735 Green Road BEACHWOOD OH 44122 US

Contact person: Telephone: Emergency telephone number: EH&S Department 216-292-5000 1-800-424-9300 (US); 1-613-996-6666 (Canada)

2. Hazard(s) identification

Hazard Classification

Health Hazards

Germ Cell Mutagenicity	Category 1B
Carcinogenicity	Category 1A
Toxic to reproduction	Category 1B

Unknown toxicity - Health

Acute toxicity, oral	37.25 %
Acute toxicity, dermal	42.06 %
Acute toxicity, inhalation, vapor	70.3 %
Acute toxicity, inhalation, dust or mist	70.03 %

Environmental Hazards

Acute hazards to the aquatic	Category 3
environment	

Unknown toxicity - Environment

Acute hazards to the aquatic environment	89.86 %
Chronic hazards to the aquatic environment	99.92 %

Label Elements



Hazard Symbol:

Signal Word:	Danger
Hazard Statement:	May cause genetic defects. May cause cancer. May damage fertility or the unborn child. Harmful to aquatic life.
Precautionary Statements	
Prevention:	Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Use personal protective equipment as required. Avoid release to the environment.
Response:	IF exposed or concerned: Get medical advice/attention.
Storage:	Store locked up.
Disposal:	Dispose of contents/container to an appropriate treatment and disposal facility in accordance with applicable laws and regulations, and product characteristics at time of disposal.
Hazard(s) not otherwise classified (HNOC):	None.

3. Composition/information on ingredients

Mixtures

Chemical Identity	CAS number	Content in percent (%)*
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Calcium Carbonate (Limestone)	1317-65-3	20 - <50%
Zinc oxide	1314-13-2	1 - <5%
Titanium dioxide	13463-67-7	1 - <5%
Propylene glycol	57-55-6	1 - <5%
Aluminum oxide	1344-28-1	0.1 - <1%
Crystalline Silica (Quartz)/ Silica Sand	14808-60-7	0.1 - <1%
n-(3,4-dichlorophenyl)-n,n- dimethylurea	330-54-1	0.1 - <1%
Kaolin Clay	1332-58-7	0.1 - <1%
Methyl benzimidazole-2-yl carbamate	10605-21-7	0.1 - <0.3%
lodopropynyl butylcarbamate	55406-53-6	0.01 - <1%

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

4. First-aid measures

Ingestion:	Rinse mouth thoroughly.	
Inhalation:	Move to fresh air.	
Skin Contact:	Remove contaminated clothing and wash the skin thoroughly with soap and water after work.	
Eye contact:	Rinse immediately with plenty of water.	
Most important symptoms/effect	s, acute and delayed	
Symptoms:	May cause skin and eye irritation.	
Indication of immediate medical a	ttention and special treatment needed	
Treatment:	Symptoms may be delayed.	
5. Fire-fighting measures		
General Fire Hazards:	No unusual fire or explosion hazards noted.	
Suitable (and unsuitable) exting	uishing media	
Suitable extinguishing media:	Use fire-extinguishing media appropriate for surrounding materials.	
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



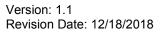
Special fire fighting procedures:	No data available.	
Special protective equipment for fire-fighters:	Self-contained breathing apparatus and full protective clothing must be worn in case of fire.	
6. Accidental release measures	S	
Personal precautions, protective equipment and emergency procedures:	No data available.	
Methods and material for containment and cleaning up:	Dam and absorb spillages with sand, earth or other non-combustible material. Collect spillage in containers, seal securely and deliver for disposal according to local regulations.	
Notification Procedures:	In the event of a spill or accidental release, notify relevant authorities in accordance with all applicable regulations.	
Environmental Precautions:	Avoid release to the environment. Prevent further leakage or spillage if safe to do so.	
7. Handling and storage		
Precautions for safe handling:	Do not handle until all safety precautions have been read and understood. Obtain special instructions before use. Use personal protective equipment as required. Provide adequate ventilation. Wear appropriate personal protective equipment. Observe good industrial hygiene practices.	
Conditions for safe storage, including any incompatibilities:	Store locked up.	

8. Exposure controls/personal protection

Control Parameters

Occupational Exposure Limits

Chemical Identity	Туре	Exposure Limit Values	Source
Calcium Carbonate	PEL	15 mg/m3	US. OSHA Table Z-1 Limits for Air
(Limestone) - Total dust.			Contaminants (29 CFR 1910.1000) (02 2006)
Calcium Carbonate	PEL	5 mg/m3	US. OSHA Table Z-1 Limits for Air
(Limestone) - Respirable			Contaminants (29 CFR 1910.1000) (02 2006)
fraction.			
Zinc oxide - Respirable	TWA	2 mg/m3	US. ACGIH Threshold Limit Values (2011)
fraction.			
	STEL	10 mg/m3	US. ACGIH Threshold Limit Values (2011)
Zinc oxide - Fume.	PEL	5 mg/m3	US. OSHA Table Z-1 Limits for Air
			Contaminants (29 CFR 1910.1000) (02 2006)
Zinc oxide - Total dust.	PEL	15 mg/m3	US. OSHA Table Z-1 Limits for Air
		_	Contaminants (29 CFR 1910.1000) (02 2006)
Zinc oxide - Respirable	PEL	5 mg/m3	US. OSHA Table Z-1 Limits for Air
fraction.			Contaminants (29 CFR 1910.1000) (02 2006)
Titanium dioxide	TWA	10 mg/m3	US. ACGIH Threshold Limit Values (2011)
Titanium dioxide - Total dust.	PEL	15 mg/m3	US. OSHA Table Z-1 Limits for Air
		_	Contaminants (29 CFR 1910.1000) (02 2006)





Titanium dioxide - Respirable fraction.	TWA	15 millions of particles per cubic foot of air	US. OSHA Table Z-3 (29 CFR 1910.1000) (03 2016)
Titanium dioxide - Total dust.	TWA	15 mg/m3	US. OSHA Table Z-3 (29 CFR 1910.1000) (03 2016)
Titanium dioxide - Respirable fraction.	TWA	5 mg/m3	US. OSHA Table Z-3 (29 CFR 1910.1000) (03 2016)
Titanium dioxide - Total dust.	TWA	50 millions of particles per cubic foot of air	US. OSHA Table Z-3 (29 CFR 1910.1000) (03 2016)
Aluminum oxide - Respirable fraction.	TWA	1 mg/m3	US. ACGIH Threshold Limit Values (2011)
	PEL	5 mg/m3	US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000) (02 2006)
Aluminum oxide - Total dust.	PEL	15 mg/m3	US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000) (02 2006)
	TWA	50 millions of particles per cubic foot of air	US. OSHA Table Z-3 (29 CFR 1910.1000) (03 2016)
Aluminum oxide - Respirable fraction.	TWA	15 millions of particles per cubic foot of air	US. OSHA Table Z-3 (29 CFR 1910.1000) (03 2016)
	TWA	5 mg/m3	US. OSHA Table Z-3 (29 CFR 1910.1000) (03 2016)
Aluminum oxide - Total dust.	TWA	15 mg/m3	US. OSHA Table Z-3 (29 CFR 1910.1000) (03 2016)
Crystalline Silica (Quartz)/ Silica Sand - Respirable fraction.	TWA	0.025 mg/m3	US. ACGIH Threshold Limit Values (2011)
Crystalline Silica (Quartz)/ Silica Sand - Respirable dust.	TWA	0.05 mg/m3	US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1053) (03 2016)
	OSHA_AC T	0.025 mg/m3	US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1053) (03 2016)
Crystalline Silica (Quartz)/ Silica Sand - Respirable dust.	PEL	0.05 mg/m3	US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000) (03 2016)
Crystalline Silica (Quartz)/ Silica Sand - Respirable.	TWA	2.4 millions of particles per cubic foot of air	US. OSHA Table Z-3 (29 CFR 1910.1000) (2000)
	TWA	0.1 mg/m3	US. OSHA Table Z-3 (29 CFR 1910.1000) (2000)
n-(3,4-dichlorophenyl)-n,n- dimethylurea	TWA	10 mg/m3	US. ACGIH Threshold Limit Values (2011)
Kaolin Clay - Respirable fraction.	TWA	2 mg/m3	US. ACGIH Threshold Limit Values (2011)
	PEL	5 mg/m3	US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000) (02 2006)
Kaolin Clay - Total dust.	PEL	15 mg/m3	US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000) (02 2006)
	TWA	50 millions of particles per cubic foot of air	US. OSHA Table Z-3 (29 CFR 1910.1000) (03 2016)
Kaolin Clay - Respirable fraction.	TWA	15 millions of particles per cubic foot of air	US. OSHA Table Z-3 (29 CFR 1910.1000) (03 2016)
	TWA	5 mg/m3	US. OSHA Table Z-3 (29 CFR 1910.1000) (03 2016)
Kaolin Clay - Total dust.	TWA	15 mg/m3	US. OSHA Table Z-3 (29 CFR 1910.1000) (03 2016)



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Chemical name	Туре	Exposure Limit Values	Source
Calcium Carbonate (Limestone) - Total dust.	STEL	20 mg/m3	Canada. British Columbia OELs. (Occupational Exposure Limits for Chemical Substances, Occupational Health and Safety Regulation 296/97, as amended) (07 2007)
	TWA	10 mg/m3	Canada. British Columbia OELs. (Occupational Exposure Limits for Chemical Substances, Occupational Health and Safety Regulation 296/97, as amended) (07 2007)
Calcium Carbonate (Limestone) - Respirable fraction.	TWA	3 mg/m3	Canada. British Columbia OELs. (Occupational Exposure Limits for Chemical Substances, Occupational Health and Safety Regulation 296/97, as amended) (07 2007)
Calcium Carbonate (Limestone) - Total dust.	TWA	10 mg/m3	Canada. Quebec OELs. (Ministry of Labor - Regulation Respecting the Quality of the Work Environment) (09 2017)
Zinc oxide - Respirable.	TWA	2 mg/m3	Canada. British Columbia OELs. (Occupational Exposure Limits for Chemical Substances, Occupational Health and Safety Regulation 296/97, as amended) (07 2007)
	STEL	10 mg/m3	Canada. British Columbia OELs. (Occupational Exposure Limits for Chemical Substances, Occupational Health and Safety Regulation 296/97, as amended) (07 2007)
Zinc oxide - Respirable fraction.	TWA	2 mg/m3	Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents) (11 2010)
	STEL	10 mg/m3	Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents) (11 2010)
Zinc oxide - Fume.	TWA	5 mg/m3	Canada. Quebec OELs. (Ministry of Labor - Regulation Respecting the Quality of the Work Environment) (09 2017)
	STEL	10 mg/m3	Canada. Quebec OELs. (Ministry of Labor - Regulation Respecting the Quality of the Work Environment) (09 2017)
Zinc oxide - Total dust.	TWA	10 mg/m3	Canada. Quebec OELs. (Ministry of Labor - Regulation Respecting the Quality of the Work Environment) (09 2017)
Titanium dioxide - Total dust.	TWA	10 mg/m3	Canada. British Columbia OELs. (Occupational Exposure Limits for Chemical Substances, Occupational Health and Safety Regulation 296/97, as amended) (07 2007)
Titanium dioxide - Respirable fraction.	TWA	3 mg/m3	Canada. British Columbia OELs. (Occupational Exposure Limits for Chemical Substances, Occupational Health and Safety Regulation 296/97, as amended) (07 2007)
Titanium dioxide	TWA	10 mg/m3	Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents) (11 2010)
Titanium dioxide - Total dust.	TWA	10 mg/m3	Canada. Quebec OELs. (Ministry of Labor - Regulation Respecting the Quality of the Work Environment) (09 2017)
Propylene glycol - Aerosol.	TWA	10 mg/m3	Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents) (11 2010)
Propylene glycol - Vapor and aerosol.	TWA	50 ppm 155 mg/m3	Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents) (06 2015)
Crystalline Silica (Quartz)/ Silica Sand - Respirable fraction.	TWA	0.025 mg/m3	Canada. British Columbia OELs. (Occupational Exposure Limits for Chemical Substances, Occupational Health and Safety Regulation 296/97, as amended) (07 2007)
Crystalline Silica (Quartz)/ Silica Sand - Respirable fraction.	TWA	0.10 mg/m3	Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents) (06 2015)
Crystalline Silica (Quartz)/ Silica Sand - Respirable dust.	TWA	0.1 mg/m3	Canada. Quebec OELs. (Ministry of Labor - Regulation Respecting the Quality of the Work Environment) (09 2017)



Chemical name	Туре	Exposure Limit Values	Source
Calcium Carbonate (Limestone) - Total dust.	STEL	20 mg/m3	Canada. British Columbia OELs. (Occupationa Exposure Limits for Chemical Substances, Occupational Health and Safety Regulation 296/97, as amended) (07 2007)
	TWA	10 mg/m3	Canada. British Columbia OELs. (Occupationa Exposure Limits for Chemical Substances, Occupational Health and Safety Regulation 296/97, as amended) (07 2007)
Calcium Carbonate (Limestone) - Respirable fraction.	TWA	3 mg/m3	Canada. British Columbia OELs. (Occupation Exposure Limits for Chemical Substances, Occupational Health and Safety Regulation 296/97, as amended) (07 2007)
Calcium Carbonate (Limestone) - Total dust.	TWA	10 mg/m3	Canada. Quebec OELs. (Ministry of Labor - Regulation Respecting the Quality of the Wor Environment) (09 2017)
Zinc oxide - Respirable.	TWA	2 mg/m3	Canada. British Columbia OELs. (Occupation Exposure Limits for Chemical Substances, Occupational Health and Safety Regulation 296/97, as amended) (07 2007)
	STEL	10 mg/m3	Canada. British Columbia OELs. (Occupation Exposure Limits for Chemical Substances, Occupational Health and Safety Regulation 296/97, as amended) (07 2007)
Zinc oxide - Respirable fraction.	TWA	2 mg/m3	Canada. Ontario OELs. (Control of Exposure Biological or Chemical Agents) (11 2010)
	STEL	10 mg/m3	Canada. Ontario OELs. (Control of Exposure Biological or Chemical Agents) (11 2010)
Zinc oxide - Fume.	TWA	5 mg/m3	Canada. Quebec OELs. (Ministry of Labor - Regulation Respecting the Quality of the Wor Environment) (09 2017)
	STEL	10 mg/m3	Canada. Quebec OELs. (Ministry of Labor - Regulation Respecting the Quality of the Wor Environment) (09 2017)



Zinc oxide - Total dust.	TWA	10 mg/m3	Canada. Quebec OELs. (Ministry of Labor - Regulation Respecting the Quality of the Wor Environment) (09 2017)
Titanium dioxide - Total dust.	TWA	10 mg/m3	Canada. British Columbia OELs. (Occupation Exposure Limits for Chemical Substances, Occupational Health and Safety Regulation 296/97, as amended) (07 2007)
Titanium dioxide - Respirable fraction.	TWA	3 mg/m3	Canada. British Columbia OELs. (Occupatior Exposure Limits for Chemical Substances, Occupational Health and Safety Regulation 296/97, as amended) (07 2007)
Titanium dioxide	TWA	10 mg/m3	Canada. Ontario OELs. (Control of Exposure Biological or Chemical Agents) (11 2010)
Titanium dioxide - Total dust.	TWA	10 mg/m3	Canada. Quebec OELs. (Ministry of Labor - Regulation Respecting the Quality of the Wor Environment) (09 2017)
Propylene glycol - Aerosol.	TWA	10 mg/m3	Canada. Ontario OELs. (Control of Exposure Biological or Chemical Agents) (11 2010)
Propylene glycol - Vapor and aerosol.	TWA	50 ppm 155 mg/m3	Canada. Ontario OELs. (Control of Exposure Biological or Chemical Agents) (06 2015)
Aluminum oxide - Respirable.	TWA	1 mg/m3	Canada. British Columbia OELs. (Occupation Exposure Limits for Chemical Substances, Occupational Health and Safety Regulation 296/97, as amended) (07 2007)
Aluminum oxide - Total dust.	TWA	10 mg/m3	Canada. British Columbia OELs. (Occupation Exposure Limits for Chemical Substances, Occupational Health and Safety Regulation 296/97, as amended) (05 2013)
Aluminum oxide - Respirable fraction.	TWA	3 mg/m3	Canada. British Columbia OELs. (Occupatior Exposure Limits for Chemical Substances, Occupational Health and Safety Regulation 296/97, as amended) (05 2013)
Aluminum oxide - Respirable fraction.	TWA	1 mg/m3	Canada. Ontario OELs. (Control of Exposure Biological or Chemical Agents) (11 2010)
Aluminum oxide - Inhalable fraction.	TWA	10 mg/m3	Canada. Ontario OELs. (Control of Exposure Biological or Chemical Agents) (06 2015)
Aluminum oxide - Respirable fraction.	TWA	3 mg/m3	Canada. Ontario OELs. (Control of Exposure Biological or Chemical Agents) (06 2015)
Aluminum oxide - Total dust. - as Al	TWA	10 mg/m3	Canada. Quebec OELs. (Ministry of Labor - Regulation Respecting the Quality of the Wor Environment) (09 2017)
Crystalline Silica (Quartz)/ Silica Sand - Respirable fraction.	TWA	0.025 mg/m3	Canada. British Columbia OELs. (Occupation Exposure Limits for Chemical Substances, Occupational Health and Safety Regulation 296/97, as amended) (07 2007)
Crystalline Silica (Quartz)/ Silica Sand - Respirable fraction.	TWA	0.10 mg/m3	Canada. Ontario OELs. (Control of Exposure Biological or Chemical Agents) (06 2015)
Crystalline Silica (Quartz)/ Silica Sand - Respirable dust.	TWA	0.1 mg/m3	Canada. Quebec OELs. (Ministry of Labor - Regulation Respecting the Quality of the Wo Environment) (09 2017)
n-(3,4-dichlorophenyl)-n,n- dimethylurea	TWA	10 mg/m3	Canada. British Columbia OELs. (Occupation Exposure Limits for Chemical Substances, Occupational Health and Safety Regulation 296/97, as amended) (07 2007)
n-(3,4-dichlorophenyl)-n,n- dimethylurea	TWA	10 mg/m3	Canada. Ontario OELs. (Control of Exposure Biological or Chemical Agents) (11 2010)
n-(3,4-dichlorophenyl)-n,n- dimethylurea	TWA	10 mg/m3	Canada. Quebec OELs. (Ministry of Labor - Regulation Respecting the Quality of the Wo Environment) (12 2008)
Kaolin Clay - Respirable.	TWA	2 mg/m3	Canada. British Columbia OELs. (Occupation Exposure Limits for Chemical Substances, Occupational Health and Safety Regulation 296/97, as amended) (07 2007)
Kaolin Clay - Respirable dust.	TWA	5 mg/m3	Canada. Quebec OELs. (Ministry of Labor - Regulation Respecting the Quality of the Wo



Kaolin Clay - Respirable	TWA		2 mg/m3	Environment) (09 2017) Canada. Ontario OELs. (Control of Exposure 1
fraction.			-	Biological or Chemical Agents) (08 2017)
Zirconium dioxide - as Zr	STEL		10 mg/m3	Canada. British Columbia OELs. (Occupationa Exposure Limits for Chemical Substances, Occupational Health and Safety Regulation 296/97, as amended) (07 2007)
	TWA		5 mg/m3	Canada. British Columbia OELs. (Occupationa Exposure Limits for Chemical Substances, Occupational Health and Safety Regulation 296/97, as amended) (07 2007)
Zirconium dioxide - as Zr	TWA		5 mg/m3	Canada. Ontario OELs. (Control of Exposure f Biological or Chemical Agents) (11 2010)
	STEL		10 mg/m3	Canada. Ontario OELs. (Control of Exposure f Biological or Chemical Agents) (11 2010)
Zirconium dioxide - as Zr	TWA		5 mg/m3	Canada. Quebec OELs. (Ministry of Labor - Regulation Respecting the Quality of the Work Environment) (09 2017)
	STEL		10 mg/m3	Canada. Quebec OELs. (Ministry of Labor - Regulation Respecting the Quality of the Work Environment) (09 2017)
Amorphous silica - Total	TWA		4 mg/m3	Canada. British Columbia OELs. (Occupationa Exposure Limits for Chemical Substances, Occupational Health and Safety Regulation 296/97, as amended) (07 2007)
Amorphous silica - Respirable.	TWA		1.5 mg/m3	Canada. British Columbia OELs. (Occupationa Exposure Limits for Chemical Substances, Occupational Health and Safety Regulation 296/97, as amended) (07 2007)
Amorphous silica - Respirable dust.	TWA		6 mg/m3	Canada. Quebec OELs. (Ministry of Labor - Regulation Respecting the Quality of the Work Environment) (09 2017)
Ammonium hydroxide	STEL	35 ppm		Canada. British Columbia OELs. (Occupationa Exposure Limits for Chemical Substances, Occupational Health and Safety Regulation 296/97, as amended) (07 2007)
	TWA	25 ppm		Canada. British Columbia OELs. (Occupationa Exposure Limits for Chemical Substances, Occupational Health and Safety Regulation 296/97, as amended) (07 2007)
Ammonium hydroxide	TWA	25 ppm		Canada. Ontario OELs. (Control of Exposure t Biological or Chemical Agents) (11 2010)
	STEL	35 ppm		Canada. Ontario OELs. (Control of Exposure t Biological or Chemical Agents) (11 2010)
Ethyl Acrylate	TWA	5 ppm		Canada. British Columbia OELs. (Occupationa Exposure Limits for Chemical Substances, Occupational Health and Safety Regulation 296/97, as amended) (07 2007)
	STEL	15 ppm		Canada. British Columbia OELs. (Occupationa Exposure Limits for Chemical Substances, Occupational Health and Safety Regulation 296/97, as amended) (07 2007)
Ethyl Acrylate	TWA	5 ppm		Canada. Ontario OELs. (Control of Exposure t Biological or Chemical Agents) (11 2010)
	STEL	15 ppm		Canada. Ontario OELs. (Control of Exposure t Biological or Chemical Agents) (11 2010)
Ethyl Acrylate	STEL	15 ppm	61 mg/m3	Canada. Quebec OELs. (Ministry of Labor - Regulation Respecting the Quality of the Work Environment) (09 2017)
	TWA	5 ppm	20 mg/m3	Canada. Quebec OELs. (Ministry of Labor - Regulation Respecting the Quality of the Work Environment) (09 2017)



Acetaldehyde	CEILING	25 ppm		Canada. British Columbia OELs. (Occupational Exposure Limits for Chemical Substances, Occupational Health and Safety Regulation 296/97, as amended) (07 2007)
Acetaldehyde	CEV	25 ppm		Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents) (11 2010)
Acetaldehyde	CEILING	25 ppm	45 mg/m3	Canada. Quebec OELs. (Ministry of Labor - Regulation Respecting the Quality of the Work Environment) (09 2017)
Formaldehyde	TWA	0.3 ppm		Canada. British Columbia OELs. (Occupational Exposure Limits for Chemical Substances, Occupational Health and Safety Regulation 296/97, as amended) (07 2007)
	CEILING	1 ppm		Canada. British Columbia OELs. (Occupational Exposure Limits for Chemical Substances, Occupational Health and Safety Regulation 296/97, as amended) (07 2007)
Formaldehyde	STEL	1 ppm		Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents) (11 2010)
	CEV	1.5 ppm		Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents) (11 2010)
Formaldehyde	CEILING	2 ppm	3 mg/m3	Canada. Quebec OELs. (Ministry of Labor - Regulation Respecting the Quality of the Work Environment) (09 2017)
p-Dioxane	TWA	20 ppm		Canada. British Columbia OELs. (Occupational Exposure Limits for Chemical Substances, Occupational Health and Safety Regulation 296/97, as amended) (07 2007)
p-Dioxane	TWA	20 ppm		Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents) (11 2010)
p-Dioxane	TWA	20 ppm	72 mg/m3	Canada. Quebec OELs. (Ministry of Labor - Regulation Respecting the Quality of the Work Environment) (12 2008)
Ethylene oxide	TWA	0.1 ppm		Canada. British Columbia OELs. (Occupational Exposure Limits for Chemical Substances, Occupational Health and Safety Regulation 296/97, as amended) (07 2007)
	STEL	1 ppm		Canada. British Columbia OELs. (Occupational Exposure Limits for Chemical Substances, Occupational Health and Safety Regulation 296/97, as amended) (07 2007)
Ethylene oxide	STEL	10 ppm	18 mg/m3	Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents) (06 2015)
	TWA	1 ppm	1.8 mg/m3	Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents) (06 2015)
Ethylene oxide	TWA	1 ppm	1.8 mg/m3	Canada. Quebec OELs. (Ministry of Labor - Regulation Respecting the Quality of the Work Environment) (09 2017)
Amorphous Precipitated Silica - Total	TWA		4 mg/m3	Canada. British Columbia OELs. (Occupational Exposure Limits for Chemical Substances, Occupational Health and Safety Regulation 296/97, as amended) (07 2007)
Amorphous Precipitated Silica - Respirable.	TWA		1.5 mg/m3	Canada. British Columbia OELs. (Occupational Exposure Limits for Chemical Substances, Occupational Health and Safety Regulation 296/97, as amended) (07 2007)
Amorphous Precipitated Silica - Respirable dust.	TWA		6 mg/m3	Canada. Quebec OELs. (Ministry of Labor - Regulation Respecting the Quality of the Work Environment) (09 2017)

Appropriate Engineering Controls

Observe good industrial hygiene practices. Observe occupational exposure limits and minimize the risk of inhalation of vapors and mist. Mechanical ventilation or local exhaust ventilation may be required.



Individual protection measures, such as personal protective equipment

General information:	Use personal protective equipment as required.
Eye/face protection:	Wear goggles/face shield.
Skin Protection Hand Protection:	Use suitable protective gloves if risk of skin contact.
Other:	No data available.
Respiratory Protection:	In case of inadequate ventilation use suitable respirator. Seek advice from local supervisor.
Hygiene measures:	Observe good industrial hygiene practices. Wash hands before breaks and immediately after handling the product. Do not handle until all safety precautions have been read and understood. Obtain special instructions before use.

9. Physical and chemical properties

Appearance	
Physical state:	liquid
Form:	liquid
Color:	White
Odor:	Mild
Odor threshold:	No data available.
pH:	8 - 10
Melting point/freezing point:	No data available.
Initial boiling point and boiling range:	100 °C 212 °F
Flash Point:	> 93 °C > 199 °F
Evaporation rate:	Slower than Ether
Flammability (solid, gas):	No
Upper/lower limit on flammability or explosition	ive limits
Flammability limit - upper (%):	No data available.
Flammability limit - lower (%):	No data available.
Explosive limit - upper (%):	No data available.
Explosive limit - lower (%):	No data available.
Vapor pressure:	No data available.
Vapor density:	Vapors are heavier than air and may travel along the floor and in the bottom of containers.
Relative density:	1.4
Solubility(ies)	
Solubility in water:	Soluble
Solubility (other):	No data available.
Partition coefficient (n-octanol/water):	No data available.
Auto-ignition temperature:	No data available.



Decomposition temperature:	No data available.
Viscosity:	No data available.
10. Stability and reactivity	
Reactivity:	No data available.
Chemical Stability:	Material is stable under normal conditions.
Possibility of hazardous reactions:	No data available.
Conditions to avoid:	Avoid heat or contamination.
Incompatible Materials:	Strong acids. Strong bases.
Hazardous Decomposition Products:	Thermal decomposition or combustion may liberate carbon oxides and other toxic gases or vapors.
11. Toxicological information	
Information on likely routes of e Inhalation:	exposure In high concentrations, vapors, fumes or mists may irritate nose, throat and mucus membranes.
Skin Contact:	Moderately irritating to skin with prolonged exposure.
Eye contact:	Eye contact is possible and should be avoided.
Ingestion:	May be ingested by accident. Ingestion may cause irritation and malaise.
Symptoms related to the physic	al, chemical and toxicological characteristics
Inhalation:	No data available.
Skin Contact:	No data available.
Eye contact:	No data available.
Ingestion:	No data available.
Information on toxicological effe	ects
Acute toxicity (list all possible	e routes of exposure)
Oral Product:	Not classified for acute toxicity based on available data.



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Specified substance(s): Zinc oxide	LD 50 (Rat): > 5,000 mg/kg
Titanium dioxide	LD 50 (Rat): > 5,000 mg/kg
Propylene glycol	LD 50 (Rat): 22,000 mg/kg
Aluminum oxide	LD 50 (Rat): > 10,000 mg/kg
n-(3,4-dichlorophenyl)- n,n-dimethylurea	LD 50 (Rat): 4,150 mg/kg
Kaolin Clay	LD 50 (Rat): > 5,000 mg/kg
Methyl benzimidazole-2- yl carbamate	LD 50 (Rat): 6,400 mg/kg
lodopropynyl butylcarbamate	LD 50 (Rat): 1.1 g/kg
Dermal Product:	Not classified for acute toxicity based on available data.
Specified substance(s): Zinc oxide	LD 50 (Rat): > 2,000 mg/kg
Propylene glycol	LD 50 (Rabbit): > 2,000 mg/kg
n-(3,4-dichlorophenyl)- n,n-dimethylurea	LD 50 (Rat): > 5,000 mg/kg
Kaolin Clay	LD 50 (Rat): > 5,000 mg/kg
Methyl benzimidazole-2- yl carbamate	LD 50 (Rabbit): > 10,000 mg/kg LD 50 (Rabbit): > 2,000 mg/kg
lodopropynyl butylcarbamate	LD 50 (Rabbit): > 2,000 mg/kg
Inhalation Product:	ATEmix: 36.56 mg/l
Repeated dose toxicity Product:	No data available.



Skin Corrosion/Irritation Product:	No data available.
Specified substance(s): Zinc oxide	in vivo (Rabbit): Not irritant Experimental result, Key study
Titanium dioxide	in vivo (Rabbit): Not irritant Experimental result, Supporting study
Propylene glycol	in vivo (Rabbit): Not irritant Experimental result, Key study
Aluminum oxide	in vivo (Rabbit): Not irritant Experimental result, Key study
n-(3,4-dichlorophenyl)- n,n-dimethylurea	Possibly Irritating in vivo (Rabbit): Not irritant Experimental result, Key study

Serious Eye Damage/Eye Irritation

Product: Specified substance(s):	n No data available.
Zinc oxide	Rabbit, 24 - 72 hrs: Not irritating
Titanium dioxide	Rabbit, 24 hrs: Not irritating
Aluminum oxide	Rabbit, 24 hrs: Not irritating

Respiratory or Skin Sensitization

Product: No data available.

Carcinogenicity Product:

No data available.

IARC Monographs on the Evaluation of Carcinogenic Risks to Humans:

Titanium dioxide	Overall evaluation: Possibly carcinogenic to humans.
Crystalline Silica (Quartz)/ Silica Sand	Overall evaluation: Carcinogenic to humans.

US. National Toxicology Program (NTP) Report on Carcinogens:

Crystalline Silica Known To Be Human Carcinogen. (Quartz)/ Silica Sand



US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050): Crystalline Silica (Quartz)/ Silica Cancer			
	Sand		
Germ Cell I	Mutagenicity		
In vitro Produ		No data available.	
In vivo Produ	uct:	No data available.	
Reproducti Produc		May damage fertility or the unborn child.	
Specific Ta Produc	rget Organ Toxicity - t:	Single Exposure No data available.	
Specific Target Organ Toxicity - Repeated ExposureProduct:No data available.			
Aspiration Produc		No data available.	
Other effe	cts:	No data available.	

12. Ecological information

Ecotoxicity:

Acute hazards to the aquatic environment:

Fish Product:	No data available.
Specified substance(s): Zinc oxide	LC 50 (Fathead minnow (Pimephales promelas), 96 h): 2,246 mg/l Mortality
Propylene glycol	LC 50 (Fathead minnow (Pimephales promelas), 96 h): 29,485 - 39,339 mg/l Mortality
n-(3,4-dichlorophenyl)- n,n-dimethylurea	LC 50 (Fathead minnow (Pimephales promelas), 96 h): 13.4 - 15 mg/l Mortality
Methyl benzimidazole-2-	LC 50 (Bluegill (Lepomis macrochirus), 96 h): > 3.2 mg/l Mortality



yl carbamate

lodopropynyl butylcarbamate	LC 50 (Rainbow trout,donaldson trout (Oncorhynchus mykiss), 96 h): 0.05 - 0.089 mg/l Mortality
Aquatic Invertebrates Product:	No data available.
Specified substance(s): Titanium dioxide	EC 50 (Water flea (Daphnia magna), 48 h): > 1,000 mg/l Intoxication
Propylene glycol	EC 50 (Water flea (Daphnia magna), 48 h): > 10,000 mg/l Intoxication
n-(3,4-dichlorophenyl)- n,n-dimethylurea	EC 50 (Water flea (Daphnia pulex), 48 h): 1.4 mg/l Mortality

Chronic hazards to the aquatic environment:

Fish Product:	No data available.
Specified substance(s): Propylene glycol	NOAEL (Pimephales promelas, 7 d): 11,530 mg/l Experimental result, Not specified
Aquatic Invertebrates Product:	No data available.
Toxicity to Aquatic Plants Product:	No data available.
Persistence and Degradability	
Biodegradation Product:	No data available.
BOD/COD Ratio Product:	No data available.
Bioaccumulative potential Bioconcentration Factor (BC Product:	F) No data available.
Partition Coefficient n-octanol / w Product:	vater (log Kow) No data available.
Specified substance(s): Propylene glycol	Log Kow: -0.92



n-(3,4-dichlorophenyl)- n,n-dimethylurea	Log Kow: 2.68
Methyl benzimidazole-2- yl carbamate	Log Kow: 1.52
ı in soil:	No data available.
dverse effects:	Harmful to aquatic organisms.
oosal considerations	
al instructions:	Dispose of waste at an appropriate treatment and disposal facility in accordance with applicable laws and regulations, and product characteristics at time of disposal.
inated Packaging:	No data available.
	n,n-dimethylurea Methyl benzimidazole-2- yl carbamate r in soil: dverse effects: posal considerations al instructions:

TDG:

Not Regulated

CFR / DOT:

Not Regulated

IMDG:

Not Regulated

15. Regulatory information

US Federal Regulations

TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)

None present or none present in regulated quantities.



US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)

<u>Chemical Identity</u> Crystalline Silica (Quartz)/ Silica Sand	OSHA hazard(s) kidney effects lung effects immune system effects Cancer
Formaldehyde	Acute toxicity Skin irritation Skin sensitization Flammability respiratory tract irritation Respiratory sensitization Cancer Eye irritation
Ethylene oxide	Skin sensitization Reproductive toxicity Mutagenicity Eye irritation Acute toxicity respiratory tract irritation Cancer Skin irritation Flammability Central nervous system

CERCLA Hazardous Substance List (40 CFR 302.4):

Chemical Identity	Reportable quantity
n-(3,4-dichlorophenyl)-	100 lbs.
n,n-dimethylurea	
Methyl benzimidazole-2-	10 lbs.
yl carbamate	
Ammonium hydroxide	1000 lbs.
Sodium nitrite	100 lbs.
Ethyl Acrylate	1000 lbs.
Acetaldehyde	1000 lbs.
Formaldehyde	100 lbs.
p-Dioxane	100 lbs.
Ethylene oxide	10 lbs.

Superfund Amendments and Reauthorization Act of 1986 (SARA)

Hazard categories

Delayed (Chronic) Health Hazard Germ Cell Mutagenicity Carcinogenicity Reproductive toxicity



SARA 302 Extremely Hazardous Substance

Chemical Identity	<u>Reportable</u> quantity
Formaldehyde	100 lbs.
Ethylene oxide	10 lbs.

Threshold Planning Quantity 500 lbs. 1000 lbs.

SARA 304 Emergency Release Notification Chemical Identity **Reportable quantity**

Zinc oxide	
n-(3,4-dichlorophenyl)-	100 lbs.
n,n-dimethylurea	
Methyl benzimidazole-2-	10 lbs.
yl carbamate	
Ammonium hydroxide	1000 lbs.
Sodium nitrite	100 lbs.
Ethyl Acrylate	1000 lbs.
Acetaldehyde	1000 lbs.
Formaldehyde	100 lbs.
p-Dioxane	100 lbs.
Ethylene oxide	10 lbs.

SARA 311/312 Hazardous Chemical

Chemical Identity	Threshold Planning Quantity
Formaldehyde	500lbs
Ethylene oxide	500lbs
Calcium Carbonate	10000 lbs
(Limestone)	
Zinc oxide	10000 lbs
Titanium dioxide	10000 lbs
Propylene glycol	10000 lbs
Aluminum oxide	10000 lbs
Crystalline Silica (Quartz)/	10000 lbs
Silica Sand	
n-(3,4-dichlorophenyl)-n,n-	10000 lbs
dimethylurea	
Kaolin Clay	10000 lbs
Methyl benzimidazole-2-yl	10000 lbs
carbamate	
lodopropynyl	10000 lbs
butylcarbamate	

SARA 313 (TRI Reporting)

Chemical Identity Zinc oxide

Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)

Chemical Identity	Reportable quantity
Acetaldehyde	lbs
Formaldehyde	lbs
Ethylene oxide	lbs

Clean Water Act Section 311 Hazardous Substances (40 CFR 117.3)

None present or none present in regulated quantities.



US State Regulations

US. California Proposition 65



WARNING

Cancer and Reproductive Harm - www.P65Warnings.ca.gov

US. New Jersey Worker and Community Right-to-Know Act

Chemical Identity

Calcium Carbonate (Limestone) Zinc oxide Titanium dioxide Propylene glycol Crystalline Silica (Quartz)/ Silica Sand

US. Massachusetts RTK - Substance List

<u>Chemical Identity</u> Calcium Carbonate (Limestone) Zinc oxide Titanium dioxide Crystalline Silica (Quartz)/ Silica Sand

US. Pennsylvania RTK - Hazardous Substances

Chemical Identity

Calcium Carbonate (Limestone) Zinc oxide Titanium dioxide Propylene glycol

US. Rhode Island RTK

Chemical Identity

Calcium Carbonate (Limestone) Zinc oxide Titanium dioxide Propylene glycol

International regulations

Montreal protocol

Not applicable

Stockholm convention

Not applicable

Rotterdam convention

Not applicable

Kyoto protocol

Not applicable

VOC:



Regulatory VOC (less water and exempt solvent)	:	28 g/l
VOC Method 310	:	1.16 %



Inventory Status: Australia AICS:	One or more components in this product are not listed on or exempt from the Inventory.
Canada DSL Inventory List:	All components in this product are listed on or exempt from the Inventory.
EINECS, ELINCS or NLP:	One or more components in this product are not listed on or exempt from the Inventory.
Japan (ENCS) List:	One or more components in this product are not listed on or exempt from the Inventory.
China Inv. Existing Chemical Substances:	One or more components in this product are not listed on or exempt from the Inventory.
Korea Existing Chemicals Inv. (KECI):	One or more components in this product are not listed on or exempt from the Inventory.
Canada NDSL Inventory:	One or more components in this product are not listed on or exempt from the Inventory.
Philippines PICCS:	One or more components in this product are not listed on or exempt from the Inventory.
New Zealand Inventory of Chemicals:	One or more components in this product are not listed on or exempt from the Inventory.
Japan ISHL Listing:	One or more components in this product are not listed on or exempt from the Inventory.
Japan Pharmacopoeia Listing:	One or more components in this product are not listed on or exempt from the Inventory.
US TSCA Inventory:	All components in this product are listed on or exempt from the Inventory.
Mexico INSQ:	One or more components in this product are not listed on or exempt from the Inventory.
Ontario Inventory:	One or more components in this product are not listed on or exempt from the Inventory.
Taiwan Chemical Substance Inventory:	One or more components in this product are not listed on or exempt from the Inventory.



16.Other information, including date of preparation or last revision

Revision Date:	12/18/2018
Version #:	1.1
Further Information:	No data available.
Disclaimer:	For Industrial Use Only. Keep out of Reach of Children. The hazard information herein is offered solely for the consideration of the user, subject to their own investigation of compliance with applicable regulations, including the safe use of the product under every foreseeable condition.