



SAFETY DATA SHEET

1. Identification

Material name: TAMMSCOAT SM ADOBE
Material: TL2210505405

Recommended use and restriction on use

Recommended use: Coatings
Restrictions on use: Not known.

Manufacturer/Importer/Supplier/Distributor Information

EUCLID CHEMICAL COMPANY
19218 REDWOOD ROAD
CLEVELAND OH 44110
US

Contact person: EH&S Department
Telephone: 216-531-9222
Emergency telephone number: 1-800-424-9300 (US); 1-613-996-6666 (Canada)

2. Hazard(s) identification

Hazard Classification

Health Hazards

Carcinogenicity Category 2

Unknown toxicity - Health

Acute toxicity, oral	1.19 %
Acute toxicity, dermal	3.94 %
Acute toxicity, inhalation, vapor	22.81 %
Acute toxicity, inhalation, dust or mist	22.07 %

Environmental Hazards

Acute hazards to the aquatic environment Category 2

Unknown toxicity - Environment

Acute hazards to the aquatic environment	60.32 %
Chronic hazards to the aquatic environment	62.81 %

Label Elements

Hazard Symbol:



Signal Word:	Warning
Hazard Statement:	Suspected of causing cancer. Toxic 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 (%) [*]
Crystalline Silica (Quartz)/ Silica Sand	14808-60-7	20 - <50%
Titanium dioxide	13463-67-7	10 - <20%
Propylene glycol	57-55-6	1 - <5%
Aluminum oxide	1344-28-1	0.1 - <1%
Magnesium aluminum silicate	12174-11-7	0.1 - <1%
Ethylene glycol	107-21-1	0.1 - <1%
Amorphous silica	7631-86-9	0.1 - <1%
Zirconium dioxide	1314-23-4	0.1 - <1%
Chlorothalonil	1897-45-6	0.001 - <1%

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

4. First-aid measures

Description of necessary first-aid measures

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.
Ingestion:	Rinse mouth thoroughly.
Personal Protection for First-aid Responders:	Self-contained breathing apparatus and full protective clothing must be worn in case of fire.

Most important symptoms/effects, acute and delayed

Symptoms:	May cause skin and eye irritation.
Hazards:	No data available.

Indication of immediate medical attention and special treatment needed

Treatment:	Symptoms may be delayed.
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5. Fire-fighting measures

General Fire Hazards:	No unusual fire or explosion hazards noted.
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Suitable (and unsuitable) extinguishing 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.
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Special protective equipment and precautions for fire-fighters

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

Personal precautions, protective equipment and emergency procedures:	No data available.
Accidental release measures:	In the event of a spill or accidental release, notify relevant authorities in accordance with all applicable regulations.

**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.

Environmental Precautions:

Avoid release to the environment. Prevent further leakage or spillage if safe to do so.

7. Handling and storage**Handling****Technical measures (e.g. Local and general ventilation):**

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.

Safe handling advice:

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.

Contact avoidance measures:

No data available.

Hygiene measures:

Observe good industrial hygiene practices. Wash hands before breaks and immediately after handling the product.

Storage**Safe storage conditions:**

Store locked up.

Safe packaging materials:

No data available.

8. Exposure controls/personal protection**Control Parameters****Occupational Exposure Limits**

Chemical Identity	Type	Exposure Limit Values	Source
Crystalline Silica (Quartz)/ Silica Sand - Respirable dust.	TWA	0.05 mg/m ³	US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1053), as amended (03 2016)
	OSHA_ACT	0.025 mg/m ³	US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1053), as amended (03 2016)
Crystalline Silica (Quartz)/ Silica Sand - Respirable dust.	PEL	0.05 mg/m ³	US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000), as amended (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), as amended (2000)
	TWA	0.1 mg/m ³	US. OSHA Table Z-3 (29 CFR 1910.1000), as amended (2000)
Crystalline Silica (Quartz)/ Silica Sand - Respirable fraction.	TWA	0.025 mg/m ³	US. ACGIH Threshold Limit Values, as amended (02 2020)
Titanium dioxide	TWA	10 mg/m ³	US. ACGIH Threshold Limit Values, as amended (2008)
Titanium dioxide - Total dust.	PEL	15 mg/m ³	US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000), as amended (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), as amended (03 2016)
Titanium dioxide - Total dust.	TWA	15 mg/m3	US. OSHA Table Z-3 (29 CFR 1910.1000), as amended (03 2016)
Titanium dioxide - Respirable fraction.	TWA	5 mg/m3	US. OSHA Table Z-3 (29 CFR 1910.1000), as amended (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), as amended (03 2016)
Aluminum oxide - Respirable fraction.	TWA	1 mg/m3	US. ACGIH Threshold Limit Values, as amended (2011)
	PEL	5 mg/m3	US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000), as amended (02 2006)
Aluminum oxide - Total dust.	PEL	15 mg/m3	US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000), as amended (02 2006)
	TWA	50 millions of particles per cubic foot of air	US. OSHA Table Z-3 (29 CFR 1910.1000), as amended (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), as amended (03 2016)
	TWA	5 mg/m3	US. OSHA Table Z-3 (29 CFR 1910.1000), as amended (03 2016)
Aluminum oxide - Total dust.	TWA	15 mg/m3	US. OSHA Table Z-3 (29 CFR 1910.1000), as amended (03 2016)
Aluminum oxide - Inhalable particles.	TWA	10 mg/m3	US. ACGIH Threshold Limit Values, as amended (01 2021)
Aluminum oxide - Respirable particles.	TWA	3 mg/m3	US. ACGIH Threshold Limit Values, as amended (01 2021)
Ethylene glycol - Aerosol, inhalable.	STEL	10 mg/m3	US. ACGIH Threshold Limit Values, as amended (03 2017)
Ethylene glycol - Vapor fraction	TWA	25 ppm	US. ACGIH Threshold Limit Values, as amended (03 2017)
	STEL	50 ppm	US. ACGIH Threshold Limit Values, as amended (03 2017)
Amorphous silica - Inhalable particles.	TWA	10 mg/m3	US. ACGIH Threshold Limit Values, as amended (01 2021)
Amorphous silica - Respirable particles.	TWA	3 mg/m3	US. ACGIH Threshold Limit Values, as amended (01 2021)
Amorphous silica - Respirable fraction.	TWA	5 mg/m3	US. OSHA Table Z-3 (29 CFR 1910.1000), as amended (09 2016)
Amorphous silica - Total dust.	TWA	15 mg/m3	US. OSHA Table Z-3 (29 CFR 1910.1000), as amended (09 2016)
	TWA	50 millions of particles per cubic foot of air	US. OSHA Table Z-3 (29 CFR 1910.1000), as amended (09 2016)
Amorphous silica - Respirable fraction.	TWA	15 millions of particles per cubic foot of air	US. OSHA Table Z-3 (29 CFR 1910.1000), as amended (09 2016)
Zirconium dioxide - as Zr	STEL	10 mg/m3	US. ACGIH Threshold Limit Values, as amended (2011)
	TWA	5 mg/m3	US. ACGIH Threshold Limit Values, as amended (2011)
	PEL	5 mg/m3	US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000), as amended (02 2006)
Zirconium dioxide - Respirable fraction.	TWA	15 millions of particles per cubic foot of air	US. OSHA Table Z-3 (29 CFR 1910.1000), as amended (03 2016)



Zirconium dioxide - Total dust.	TWA	15 mg/m3	US. OSHA Table Z-3 (29 CFR 1910.1000), as amended (03 2016)
Zirconium dioxide - Respirable fraction.	TWA	5 mg/m3	US. OSHA Table Z-3 (29 CFR 1910.1000), as amended (03 2016)
Zirconium dioxide - Total dust.	TWA	50 millions of particles per cubic foot of air	US. OSHA Table Z-3 (29 CFR 1910.1000), as amended (03 2016)
Zirconium dioxide - Respirable particles.	TWA	3 mg/m3	US. ACGIH Threshold Limit Values, as amended (01 2021)
Zirconium dioxide - Inhalable particles.	TWA	10 mg/m3	US. ACGIH Threshold Limit Values, as amended (01 2021)



Chemical name	Type	Exposure Limit Values	Source
Crystalline Silica (Quartz)/ Silica Sand - Respirable fraction.	TWA	0.10 mg/m3	Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents), as amended (06 2015)
Crystalline Silica (Quartz)/ Silica Sand - Respirable dust.	TWA	0.1 mg/m3	Canada. Quebec OELs. (Ministry of Labor - Regulation respecting occupational health and safety), as amended (09 2017)
Crystalline Silica (Quartz)/ Silica Sand - Respirable fraction.	TWA	0.025 mg/m3	Canada. British Columbia OELs. (Occupational Exposure Limits for Chemical Biological Substances, Occupational Health and Safety Regulation 296/97, as amended) (06 2020)
Titanium dioxide - Total dust.	TWA	10 mg/m3	Canada. British Columbia OELs. (Occupational Exposure Limits for Chemical Biological 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 Biological 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), as amended (11 2010)
Titanium dioxide - Total dust.	TWA	10 mg/m3	Canada. Quebec OELs. (Ministry of Labor - Regulation respecting occupational health and safety), as amended (09 2017)
Propylene glycol - Aerosol.	TWA	10 mg/m3	Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents), as amended (11 2010)
Propylene glycol - Vapor and aerosol.	TWA	50 ppm 155 mg/m3	Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents), as amended (06 2015)
Aluminum oxide - Respirable fraction.	TWA	1 mg/m3	Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents), as amended (11 2010)
Aluminum oxide - Inhalable fraction.	TWA	10 mg/m3	Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents), as amended (06 2015)
Aluminum oxide - Respirable fraction.	TWA	3 mg/m3	Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents), as amended (06 2015)
Aluminum oxide - Total dust. - as Al	TWA	10 mg/m3	Canada. Quebec OELs. (Ministry of Labor - Regulation respecting occupational health and safety), as amended (09 2017)
Aluminum oxide - Respirable.	TWA	1.0 mg/m3	Canada. British Columbia OELs. (Occupational Exposure Limits for Chemical Biological Substances, Occupational Health and Safety Regulation 296/97, as amended) (06 2020)
Aluminum oxide - Total dust.	TWA	10 mg/m3	Canada. British Columbia OELs. (Occupational Exposure Limits for Chemical Biological Substances, Occupational Health and Safety Regulation 296/97, as amended) (06 2020)
Aluminum oxide - Inhalable particles.	TWA	10 mg/m3	Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents), as amended (01 2020)
Aluminum oxide - Respirable particles.	TWA	3 mg/m3	Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents), as amended (01 2020)
Aluminum oxide - Respirable fraction.	TWA	3 mg/m3	Canada. British Columbia OELs. (Occupational Exposure Limits for Chemical Biological Substances, Occupational Health and Safety Regulation 296/97, as amended) (06 2020)
Magnesium aluminum silicate - Fiber.	TWA	1 fibres/cm3 (non- asbestos fibres) -- size restrictions	Canada. Quebec OELs. (Ministry of Labor - Regulation respecting occupational health and safety), as amended (09 2017)



		apply	
Ethylene glycol - Vapor.	CEILING	50 ppm	Canada. British Columbia OELs. (Occupational Exposure Limits for Chemical Biological Substances, Occupational Health and Safety Regulation 296/97, as amended) (07 2007)
Ethylene glycol - Aerosol.	CEILING	100 mg/m3	Canada. British Columbia OELs. (Occupational Exposure Limits for Chemical Biological Substances, Occupational Health and Safety Regulation 296/97, as amended) (07 2007)
Ethylene glycol - Particulate.	TWA	10 mg/m3	Canada. British Columbia OELs. (Occupational Exposure Limits for Chemical Biological Substances, Occupational Health and Safety Regulation 296/97, as amended) (07 2007)
	STEL	20 mg/m3	Canada. British Columbia OELs. (Occupational Exposure Limits for Chemical Biological Substances, Occupational Health and Safety Regulation 296/97, as amended) (07 2007)
Ethylene glycol - Vapor and mist.	CEILING	50 ppm 127 mg/m3	Canada. Quebec OELs. (Ministry of Labor - Regulation respecting occupational health and safety), as amended (09 2017)
Ethylene glycol - Aerosol, inhalable.	STEL	10 mg/m3	Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents), as amended (01 2020)
Amorphous silica - Respirable fraction.	TWA	3 mg/m3	Canada. British Columbia OELs. (Occupational Exposure Limits for Chemical Biological Substances, Occupational Health and Safety Regulation 296/97, as amended) (06 2020)
Amorphous silica - Inhalable fraction.	TWA	10 mg/m3	Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents), as amended (01 2020)
Amorphous silica - Respirable particles.	TWA	3 mg/m3	Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents), as amended (01 2020)
Amorphous silica - Total dust.	TWA	10 mg/m3	Canada. Quebec OELs. (Ministry of Labor - Regulation respecting occupational health and safety), as amended (03 2020)
Amorphous silica - Respirable fraction.	TWA	3 mg/m3	Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents), as amended (01 2020)
Amorphous silica - Total dust.	TWA	10 mg/m3	Canada. British Columbia OELs. (Occupational Exposure Limits for Chemical Biological Substances, Occupational Health and Safety Regulation 296/97, as amended) (06 2020)
Amorphous silica - Inhalable particles.	TWA	10 mg/m3	Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents), as amended (01 2020)
Zirconium dioxide - as Zr	STEL	10 mg/m3	Canada. British Columbia OELs. (Occupational Exposure Limits for Chemical Biological Substances, Occupational Health and Safety Regulation 296/97, as amended) (07 2007)
	TWA	5 mg/m3	Canada. British Columbia OELs. (Occupational Exposure Limits for Chemical Biological 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 to Biological or Chemical Agents), as amended (11 2010)
	STEL	10 mg/m3	Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents), as amended (11 2010)
Zirconium dioxide - as Zr	TWA	5 mg/m3	Canada. Quebec OELs. (Ministry of Labor - Regulation respecting occupational health and safety), as amended (09 2017)
	STEL	10 mg/m3	Canada. Quebec OELs. (Ministry of Labor - Regulation respecting occupational health and safety), as amended (09 2017)



Zirconium dioxide - Respirable fraction.	TWA	3 mg/m3	Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents), as amended (01 2020)
Zirconium dioxide - Total dust.	TWA	10 mg/m3	Canada. Quebec OELs. (Ministry of Labor - Regulation respecting occupational health and safety), as amended (04 2019)
Zirconium dioxide - Inhalable fraction.	TWA	10 mg/m3	Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents), as amended (01 2020)
Zirconium dioxide - Inhalable particles.	TWA	10 mg/m3	Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents), as amended (01 2020)
Zirconium dioxide - Respirable fraction.	TWA	3 mg/m3	Canada. British Columbia OELs. (Occupational Exposure Limits for Chemical Biological Substances, Occupational Health and Safety Regulation 296/97, as amended) (06 2020)
Zirconium dioxide - Total dust.	TWA	10 mg/m3	Canada. British Columbia OELs. (Occupational Exposure Limits for Chemical Biological Substances, Occupational Health and Safety Regulation 296/97, as amended) (06 2020)
Zirconium dioxide - Respirable particles.	TWA	3 mg/m3	Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents), as amended (01 2020)
Talc - Respirable.	TWA	2 mg/m3	Canada. British Columbia OELs. (Occupational Exposure Limits for Chemical Biological Substances, Occupational Health and Safety Regulation 296/97, as amended) (07 2007)
Talc	TWA	2 Fibers/cc	Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents), as amended (08 2017)
Talc - Respirable fraction.	TWA	2 mg/m3	Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents), as amended (08 2017)
Talc - Respirable dust.	TWA	2 mg/m3	Canada. Quebec OELs. (Ministry of Labor - Regulation respecting occupational health and safety), as amended (03 2020)
Ammonium hydroxide	STEL	35 ppm	Canada. British Columbia OELs. (Occupational Exposure Limits for Chemical Biological Substances, Occupational Health and Safety Regulation 296/97, as amended) (07 2007)
	TWA	25 ppm	Canada. British Columbia OELs. (Occupational Exposure Limits for Chemical Biological Substances, Occupational Health and Safety Regulation 296/97, as amended) (07 2007)
Ammonium hydroxide	TWA	25 ppm	Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents), as amended (11 2010)
	STEL	35 ppm	Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents), as amended (11 2010)
	TWA	25 ppm	Canada. British Columbia OELs. (Occupational Exposure Limits for Chemical Biological Substances, Occupational Health and Safety Regulation 296/97, as amended) (06 2020)
Ammonium hydroxide	STEL	35 ppm 24 mg/m3	Canada. Quebec OELs. (Ministry of Labor - Regulation respecting occupational health and safety), as amended (03 2020)
	STEL	35 ppm	Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents), as amended (01 2020)
	STEL	35 ppm	Canada. British Columbia OELs. (Occupational Exposure Limits for Chemical Biological Substances, Occupational Health and Safety Regulation 296/97, as amended) (06 2020)
	TWA	25 ppm	Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents), as amended (01 2020)



	TWA	25 ppm	17 mg/m3	Canada. Quebec OELs. (Ministry of Labor - Regulation respecting occupational health and safety), as amended (03 2020)
Carbon Black - Inhalable	TWA		3 mg/m3	Canada. British Columbia OELs. (Occupational Exposure Limits for Chemical Biological Substances, Occupational Health and Safety Regulation 296/97, as amended) (09 2011)
Carbon Black - Inhalable fraction.	TWA		3 mg/m3	Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents), as amended (06 2015)
Carbon Black - Inhalable dust.	TWA		3 mg/m3	Canada. Quebec OELs. (Ministry of Labor - Regulation respecting occupational health and safety), as amended (03 2020)
Formaldehyde	STEL	1 ppm		Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents), as amended (11 2010)
	CEV	1.5 ppm		Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents), as amended (12 2007)
Formaldehyde	CEILING	2 ppm	3 mg/m3	Canada. Quebec OELs. (Ministry of Labor - Regulation respecting occupational health and safety), as amended (09 2017)
Formaldehyde	STEL	0.3 ppm		Canada. British Columbia OELs. (Occupational Exposure Limits for Chemical Biological Substances, Occupational Health and Safety Regulation 296/97, as amended) (01 2020)
	TWA	0.1 ppm		Canada. British Columbia OELs. (Occupational Exposure Limits for Chemical Biological Substances, Occupational Health and Safety Regulation 296/97, as amended) (01 2020)
Ammonia	STEL	35 ppm		Canada. British Columbia OELs. (Occupational Exposure Limits for Chemical Biological Substances, Occupational Health and Safety Regulation 296/97, as amended) (07 2007)
	TWA	25 ppm		Canada. British Columbia OELs. (Occupational Exposure Limits for Chemical Biological Substances, Occupational Health and Safety Regulation 296/97, as amended) (07 2007)
Ammonia	STEL	35 ppm		Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents), as amended (11 2010)
	TWA	25 ppm		Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents), as amended (11 2010)
Ammonia	STEL	35 ppm	24 mg/m3	Canada. Quebec OELs. (Ministry of Labor - Regulation respecting occupational health and safety), as amended (09 2017)
	TWA	25 ppm	17 mg/m3	Canada. Quebec OELs. (Ministry of Labor - Regulation respecting occupational health and safety), as amended (09 2017)
Cellulose - Respirable fraction.	TWA		3 mg/m3	Canada. British Columbia OELs. (Occupational Exposure Limits for Chemical Biological Substances, Occupational Health and Safety Regulation 296/97, as amended) (07 2007)
Cellulose - Total dust.	TWA		10 mg/m3	Canada. British Columbia OELs. (Occupational Exposure Limits for Chemical Biological Substances, Occupational Health and Safety Regulation 296/97, as amended) (07 2007)
Cellulose	TWA		10 mg/m3	Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents), as amended (11 2010)
Cellulose - Total dust.	TWA		10 mg/m3	Canada. Quebec OELs. (Ministry of Labor - Regulation respecting occupational health and safety), as amended (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

Eye/face protection: Wear goggles/face shield.

Skin Protection

Hand Protection: Additional Information: Use suitable protective gloves if risk of skin contact.

Skin and Body Protection: 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.

9. Physical and chemical properties

Appearance

Physical state: liquid

Form: liquid

Color: Brown

Odor: Mild

Odor threshold: No data available.

pH: 9 - 10

Melting point/freezing point: -0.00 °C 32 °F

Initial boiling point and boiling range: 100 °C 212 °F

Flash Point: No data available.

Evaporation rate: Slower than Ether

Flammability (solid, gas): No

Upper/lower limit on flammability or explosive 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 exposure

Inhalation:	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 physical, 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 effects

Acute toxicity (list all possible routes of exposure)

Oral Product:	Not classified for acute toxicity based on available data.
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**Specified substance(s):**

Propylene glycol	LD 50 (Rat): 22,000 mg/kg
Aluminum oxide	LD 50 (Rat): > 10,000 mg/kg
Ethylene glycol	LD 50 (Rat): 7,712 mg/kg
Amorphous silica	LD 50 (Rat): > 5,000 mg/kg
Zirconium dioxide	LD 50 (Rat): > 5,000 mg/kg
Chlorothalonil	LD 50 (Rat): 422 mg/kg

Dermal

Product: Not classified for acute toxicity based on available data.

Specified substance(s):

Propylene glycol	LD 50 (Rabbit): > 2,000 mg/kg
Ethylene glycol	LD 50 (Rabbit): 9,530 mg/kg LD 50 (Mouse): > 3,500 mg/kg
Amorphous silica	LD 50 (Rabbit): > 5,000 mg/kg
Chlorothalonil	LD 50 (Rat): > 2,500 mg/kg

Inhalation

Product: Not classified for acute toxicity based on available data.

Specified substance(s):

Aluminum oxide	LC 50 (Rat): 7.6 mg/l
Amorphous silica	LC 50 (Rat): > 2.08 mg/l
Chlorothalonil	LC 50: 0.10 mg/l

Repeated dose toxicity

Product: No data available.

**Skin Corrosion/Irritation****Product:** No data available.**Specified substance(s):**

Propylene glycol	in vivo (Rabbit): Not irritant , 24 - 72 h
Aluminum oxide	in vivo (Rabbit): Not irritant , 24 - 72 h
Ethylene glycol	in vivo (Rabbit): Not irritant , 8 d
Amorphous silica	in vivo (Rabbit): Not irritant , 48 h

Serious Eye Damage/Eye Irritation**Product:** No data available.**Specified substance(s):**

Aluminum oxide	Rabbit, 24 hrs: Not irritant
Ethylene glycol	Rabbit, 24 hrs: Not irritant
Amorphous silica	Rabbit, 24 - 72 hrs: Not irritant
Zirconium dioxide	Rabbit, 24 hrs: Not irritant

Respiratory or Skin Sensitization**Product:** No data available.**Carcinogenicity****Product:** Suspected of causing cancer.**IARC Monographs on the Evaluation of Carcinogenic Risks to Humans:**

Magnesium aluminum silicate	Overall evaluation: Possibly carcinogenic to humans. Overall evaluation: Not classifiable as to carcinogenicity to humans.
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US. National Toxicology Program (NTP) Report on Carcinogens:**US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050), as amended:****Germ Cell Mutagenicity****In vitro
Product:** No data available.**In vivo
Product:** No data available.**Reproductive toxicity****Product:** No data available.

**Specific Target Organ Toxicity - Single Exposure****Product:** No data available.**Specific Target Organ Toxicity - Repeated Exposure****Product:** No data available.**Aspiration Hazard****Product:** No data available.**Other effects:**

Constituents of this product may include crystalline silica which, if in inhalable form, may cause silicosis, a form of progressive pulmonary fibrosis. Inhalable crystalline silica is listed by IARC as a group I carcinogen (lung) based on sufficient evidence in occupationally exposed humans and sufficient evidence in animals. Crystalline silica is also listed by the NTP as a known human carcinogen. Constituents may also contain asbestiform or non-asbestiform tremolite or other silicates as impurities, and above de minimis exposure to these impurities in inhalable form may be carcinogenic or cause other serious lung problems.

12. Ecological information**Ecotoxicity:****Acute hazards to the aquatic environment:****Fish****Product:** No data available.**Specified substance(s):**

Propylene glycol	LC 50 (Oncorhynchus mykiss, 96 h): 40,613 mg/l Experimental result, Key study
Aluminum oxide	LC 50 (Pimephales promelas, 96 h): 1.16 mg/l Experimental result, Weight of Evidence study
Ethylene glycol	LC 50 (Pimephales promelas, 96 h): 72,860 mg/l Experimental result, Key study
Zirconium dioxide	LC 50 (Danio rerio, 96 h): > 100 mg/l Experimental result, Key study
Chlorothalonil	LC 50 (Rainbow trout,donaldson trout (Oncorhynchus mykiss), 96 h): 0.0171 mg/l Mortality

Aquatic Invertebrates**Product:** No data available.**Specified substance(s):**



Propylene glycol	LC 50 (Ceriodaphnia dubia, 48 h): 18,340 mg/l experimental result Experimental result, Key study
Aluminum oxide	EC 50 (Ceriodaphnia dubia, 48 h): 1.5 mg/l experimental result Experimental result, Weight of Evidence study
Chlorothalonil	LC 50 (Water flea (Daphnia magna), 48 h): 0.151 - 0.253 mg/l Mortality

Chronic hazards to the aquatic environment:**Fish**

Product: No data available.

Specified substance(s):

Propylene glycol NOAEL (Pimephales promelas): 11,530 mg/l experimental result
Experimental result, Not specified

Ethylene glycol NOAEL (Pimephales promelas): 15,380 mg/l experimental result
Experimental result, Weight of Evidence study

Aquatic Invertebrates

Product: No data available.

Specified substance(s):

Propylene glycol NOAEL (Ceriodaphnia sp.): 13,020 mg/l experimental result
Experimental result, Key study

Aluminum oxide NOAEL (Daphnia magna): 1.89 mg/l experimental result
Experimental result, Weight of Evidence study

Toxicity to Aquatic Plants

Product: No data available.

Persistence and Degradability**Biodegradation**

Product: No data available.

Specified substance(s):

Propylene glycol 98.3 % (28 d) Detected in water. Experimental result, Key study

Ethylene glycol 90 - 100 % (10 d) Detected in water. Experimental result, Key study

BOD/COD Ratio

Product: No data available.

Bioaccumulative potential**Bioconcentration Factor (BCF)**

Product: No data available.

Specified substance(s):

Propylene glycol Bioconcentration Factor (BCF): 0.09 Aquatic sediment
Estimated by calculation, Supporting study

**Partition Coefficient n-octanol / water (log Kow)****Product:** No data available.**Specified substance(s):**Propylene glycol Log Kow: -0.92
Log Kow: -1.41 - -0.3 20 °C No Other, Supporting study

Ethylene glycol Log Kow: -1.36

Mobility in soil: No data available.**Other adverse effects:** Toxic to aquatic organisms.**13. Disposal considerations****Disposal methods:** Dispose of waste at an appropriate treatment and disposal facility in accordance with applicable laws and regulations, and product characteristics at time of disposal.**Contaminated Packaging:** No data available.**14. Transport information****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. Toxic Substances Control Act (TSCA) Section 5(a)(2) Final Significant New Use Rules (SNURs) (40 CFR 721, Subpt E)

None present or none present in regulated quantities.



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

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

CERCLA Hazardous Substance List (40 CFR 302.4):

<u>Chemical Identity</u>	<u>Reportable quantity</u>
Ethylene glycol	5000 lbs.
Ammonium hydroxide	1000 lbs.
Formaldehyde	100 lbs.
Ammonia	100 lbs.

Superfund Amendments and Reauthorization Act of 1986 (SARA)

Hazard categories

- Delayed (Chronic) Health Hazard
- Carcinogenicity

US. EPCRA (SARA Title III) Section 304 Extremely Hazardous Substances Reporting Quantities and the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) Hazardous Substances

US. EPCRA (SARA Title III Section 313 Toxic Chemical Release Inventory (TRI) Reporting

Not regulated.

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

<u>Chemical Identity</u>	<u>Reportable quantity</u>
Formaldehyde	lbs
Ammonia	lbs
Ammonia	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

For more information go to www.P65Warnings.ca.gov.

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) : 99 g/l

VOC Method 310 : 3.06 %

**Inventory Status:**

Australia AICS:	One or more components in this product are not 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.
Canada DSL Inventory List:	All components in this product are listed on or exempt from the Inventory.
US TSCA Inventory:	All components in this product are listed on or exempt from the Inventory.



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

Revision Date: 11/11/2022

Version #: 3.1

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.