

Revision Date: 01/27/2022

# SAFETY DATA SHEET

### 1. Identification

Material name: TREMSEAL PRO LIMESTONE - 30 CTG/CS

Material: 876453 309

Recommended use and restriction on use

Recommended use: Sealant

Sealant Sealant

Restrictions on use: Not known.

# Manufacturer/Importer/Supplier/Distributor Information

Tremco U.S. Roofing 3735 Green Road Beachwood OH 44122 US

**Contact person:** EH&S Department **Telephone:** 216-292-5000

**Emergency telephone number:** 1-800-424-9300 (US); 1-613-996-6666 (Canada)

### 2. Hazard(s) identification

### **Hazard Classification**

### **Health Hazards**

Acute toxicity (Inhalation - dust and Category 4

mist)

Respiratory sensitizer Category 1
Skin sensitizer Category 1
Carcinogenicity Category 1A
Toxic to reproduction Category 1B

# **Unknown toxicity - Health**

Acute toxicity, oral 26.14 %
Acute toxicity, dermal 29.18 %
Acute toxicity, inhalation, vapor 94.36 %
Acute toxicity, inhalation, dust 93.46 %

or mist

#### **Environmental Hazards**

Acute hazards to the aquatic Category 3

environment

Chronic hazards to the aquatic Category 3

environment

### **Unknown toxicity - Environment**



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Acute hazards to the aquatic

environment

Chronic hazards to the aquatic

environment

93.21 % 92.7 %

### **Label Elements**

### **Hazard Symbol:**



Signal Word: Danger

**Hazard Statement:** Harmful if inhaled.

May cause allergy or asthma symptoms or breathing difficulties if inhaled.

May cause an allergic skin reaction.

May cause cancer.

May damage fertility or the unborn child. Harmful to aquatic life with long lasting effects.

Precautionary Statements

Prevention: Avoid breathing dust/fume/gas/mist/vapors/spray. Use only outdoors or in a

well-ventilated area. [In case of inadequate ventilation] wear respiratory protection. Contaminated work clothing should not be allowed out of the workplace. Wear protective gloves/protective clothing/eye protection/face protection. 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 INHALED: Remove person to fresh air and keep comfortable for

breathing. If experiencing respiratory symptoms: Call a POISON CENTER or doctor/ physician. IF ON SKIN: Wash with plenty of soap and water. If skin irritation or rash occurs: Get medical advice/attention. Call a POISON CENTER/doctor if you feel unwell. Specific treatment (see on this label).

Wash contaminated clothing before reuse.

**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



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### **Mixtures**

Chemical Identity	CAS number	Content in percent (%)*
Calcium carbonate	471-34-1	20 - <50%
Polyvinyl chloride	9002-86-2	5 - <10%
Calcium Carbonate (Limestone)	1317-65-3	5 - <10%
Xylene	1330-20-7	1 - <5%
Calcium oxide	1305-78-8	1 - <5%
Titanium dioxide	13463-67-7	1 - <5%
Diisodecyl phthalate	26761-40-0	0.3 - <1%
Ethylbenzene	100-41-4	0.1 - <1%
Isophorone Diisocyanate	4098-71-9	0.1 - <1%
Hydrotreated heavy naphthenic distillate	64742-52-5	0.1 - <1%
Stearic acid	57-11-4	0.1 - <1%
Dibutyl tin dilaurate	77-58-7	0.1 - <0.3%
lodopropynyl butylcarbamate	55406-53-6	0.01 - <0.1%

<sup>\*</sup> 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:** Call a physician or poison control center immediately. If breathing

stops, provide artificial respiration. Move to fresh air. If breathing is

difficult, give oxygen.

**Skin Contact:** If skin irritation occurs: Get medical advice/attention. Destroy or

thoroughly clean contaminated shoes. Immediately remove

contaminated clothing and shoes and wash skin with soap and plenty of water. If skin irritation or an allergic skin reaction develops, get

medical attention.

**Eye contact:** Any material that contacts the eye should be washed out immediately

with water. If easy to do, remove contact lenses. If eye irritation

persists: Get medical advice/attention.

**Ingestion:** Call a POISON CENTER/doctor if you feel unwell. Rinse mouth.

**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.

# 5. Fire-fighting measures



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**General Fire Hazards:** No unusual fire or explosion hazards noted.

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.

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

Personal precautions, protective equipment and emergency procedures: Ventilate closed spaces before entering them. Evacuate area. See Section 8 of the SDS for Personal Protective Equipment. Keep upwind. Keep unauthorized personnel away. Do not touch damaged containers or spilled

material unless wearing appropriate protective clothing.

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:

Collect spillage in containers, seal securely and deliver for disposal

according to local regulations.

**Environmental Precautions:** Do not contaminate water sources or sewer. Prevent further leakage or

spillage if safe to do so. Avoid release to the environment.

### 7. Handling and storage

Handling

Technical measures (e.g. Local and general ventilation):

Mechanical ventilation or local exhaust ventilation may be required.

Observe good industrial hygiene practices. Observe occupational exposure

limits and minimize the risk of inhalation of dust.

Safe handling advice: Ventilate well, avoid breathing vapors. Use approved respirator if air

contamination is above accepted level. Use mechanical ventilation in case of handling which causes formation of dust. Wash hands thoroughly after handling. Do not handle until all safety precautions have been read and understood. Obtain special instructions before use. Use personal protective equipment as required. Do not breathe dust/fume/gas/mist/vapors/spray.

Avoid contact with eyes, skin, and clothing.



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Contact avoidance measures: No data available.

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. Contaminated work clothing should not be allowed out of the

workplace. Avoid contact with skin.

**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	Туре	Exposure Limit Values	Source
Calcium carbonate - Total dust.	PEL	15 mg/m3	Contaminants (29 CFR 1910.1000), as amended (02 2006)
Calcium carbonate - Respirable fraction.	PEL	5 mg/m3	US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000), as amended (02 2006)
	TWA	5 mg/m3	amended (09 2016)
Calcium carbonate - Inhalable particles.	TWA	10 mg/m3	US. ACGIH Threshold Limit Values, as amended (01 2021)
Calcium carbonate - Respirable particles.	TWA	3 mg/m3	amended (01 2021)
Calcium carbonate - Respirable fraction.	TWA	15 millions of particles per cubic foot of air	amended (09 2016)
Calcium carbonate - Total dust.	TWA	15 mg/m3	US. OSHA Table Z-3 (29 CFR 1910.1000), as amended (09 2016)
	PEL	15 mg/m3	US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000), as amended (01 2017)
	TWA	50 millions of particles per cubic foot of air	US. OSHA Table Z-3 (29 CFR 1910.1000), as amended (09 2016)
Calcium carbonate - Respirable fraction.	PEL	5 mg/m3	US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000), as amended (01 2017)
Polyvinyl chloride - Respirable fraction.	TWA	1 mg/m3	US. ACGIH Threshold Limit Values, as amended (2011)
Polyvinyl chloride - as vinyl chloride monomer	TWA	1 ppm	US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1053), as amended (02 2006)
	STEL	5 ppm	US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1053), as amended (02 2006)
	OSHA_AC T	0.5 ppm	US. ÓSHA Specifically Regulated Substances (29 CFR 1910.1001-1053), as amended (02 2006)
Polyvinyl chloride - Respirable fraction.	PEL	5 mg/m3	US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000), as amended (02 2006)



**TREMCO** 

Polyvinyl chloride - Total dust.	PEL		15 mg/m3	US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000), as amended (02 2006)
	TWA	pa	millions of articles per abic foot of air	US. OSHA Table Z-3 (29 CFR 1910.1000), as amended (2000)
Polyvinyl chloride - Respirable fraction.	TWA	pa	millions of articles per abic foot of air	US. OSHA Table Z-3 (29 CFR 1910.1000), as amended (2000)
Polyvinyl chloride - Total dust.	TWA		15 mg/m3	US. OSHA Table Z-3 (29 CFR 1910.1000), as amended (2000)
Polyvinyl chloride - Respirable fraction.	TWA		5 mg/m3	US. OSHA Table Z-3 (29 CFR 1910.1000), as amended (2000)
Calcium Carbonate (Limestone) - Total dust.	PEL		15 mg/m3	US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000), as amended (02 2006)
Calcium Carbonate (Limestone) - Respirable fraction.	PEL		5 mg/m3	US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000), as amended (02 2006)
Xylene	PEL	100 ppm 4	35 mg/m3	US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000), as amended (02 2006)
	STEL	150 ppm		US. ACGIH Threshold Limit Values, as amended (2008)
	TWA	100 ppm		US. ACGIH Threshold Limit Values, as amended (2008)
Calcium oxide	TWA		2 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)
Titanium dioxide	TWA		10 mg/m3	US. ACGIH Threshold Limit Values, as amended (2011)
Titanium dioxide - Total dust.	PEL		15 mg/m3	US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000), as amended (02 2006)
Titanium dioxide - Respirable fraction.	TWA	ра	millions of articles per abic 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	pa	millions of articles per abic foot of air	US. OSHA Table Z-3 (29 CFR 1910.1000), as amended (03 2016)
Ethylbenzene	TWA	20 ppm		US. ACGIH Threshold Limit Values, as amended (2011)
	PEL		35 mg/m3	US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000), as amended (02 2006)
Isophorone Diisocyanate	TWA	0.005 ppm		US. ACGIH Threshold Limit Values, as amended (2011)
Hydrotreated heavy naphthenic distillate	PEL	500 ppm 2,0	00 mg/m3	US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000), as amended (02 2006)
Hydrotreated heavy naphthenic distillate - Mist.	PEL		5 mg/m3	US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000), as amended (02 2006)
Hydrotreated heavy naphthenic distillate - Inhalable fraction.	TWA		5 mg/m3	US. ACGIH Threshold Limit Values, as amended (03 2014)
Stearic acid - Respirable fraction.	TWA		3 mg/m3	US. ACGIH Threshold Limit Values, as amended (03 2017)
Stearic acid - Inhalable	TWA		10 mg/m3	US. ACGIH Threshold Limit Values, as





fraction.			amended (03 2017)
Dibutyl tin dilaurate - as Sn	STEL	0.2 mg/m3	US. ACGIH Threshold Limit Values, as
			amended (2011)
	TWA	0.1 mg/m3	US. ACGIH Threshold Limit Values, as
			amended (2011)
	PEL	0.1 mg/m3	US. OSHA Table Z-1 Limits for Air
			Contaminants (29 CFR 1910.1000), as
			amended (02 2006)

Chemical name	Туре	Exposure Limit Values	Source
Calcium carbonate - Total dust.	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)
Calcium carbonate - 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)
Calcium carbonate - 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)
Calcium carbonate - Total dust.	TWA	10 mg/m3	Canada. Quebec OELs. (Ministry of Labor - Regulation respecting occupational health and safety), as amended (09 2017)
	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)
Calcium carbonate - Inhalable particles.	TWA	10 mg/m3	Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents), as amended (01 2020)
Calcium carbonate - Respirable fraction.	TWA	3 mg/m3	Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents), as amended (01 2020)
Calcium carbonate - 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)
Calcium carbonate - Respirable particles.	TWA	3 mg/m3	Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents), as amended (01 2020)
Calcium carbonate - Inhalable fraction.	TWA	10 mg/m3	Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents), as amended (01 2020)
Polyvinyl chloride - Respirable.	TWA	1 mg/m3	Canada. British Columbia OELs. (Occupational Exposure Limits for Chemical Biological Substances, Occupational Health and Safety Regulation 296/97, as amended) (07 2007)
Polyvinyl chloride - Respirable fraction.	TWA	1 mg/m3	Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents), as amended (11 2010)
Polyvinyl chloride - Total dust.	TWA	10 mg/m3	Canada. Quebec OELs. (Ministry of Labor - Regulation respecting occupational health and safety), as amended (09 2017)
Calcium Carbonate (Limestone) - Total dust.	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)
	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)



Calcium Carbonate (Limestone) - 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)
Calcium Carbonate (Limestone) - Total dust.	TWA		10 mg/m3	Canada. Quebec OELs. (Ministry of Labor - Regulation respecting occupational health and safety), as amended (09 2017)
Xylene	STEL	150 ppm		Canada. British Columbia OELs. (Occupational Exposure Limits for Chemical Biological Substances, Occupational Health and Safety Regulation 296/97, as amended) (07 2007)
	TWA	100 ppm		Canada. British Columbia OELs. (Occupational Exposure Limits for Chemical Biological Substances, Occupational Health and Safety Regulation 296/97, as amended) (07 2007)
Xylene	STEL	150 ppm		Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents), as amended (11 2010)
	TWA	100 ppm		Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents), as amended (11 2010)
Xylene	TWA	100 ppm	434 mg/m3	Canada. Quebec OELs. (Ministry of Labor - Regulation respecting occupational health and safety), as amended (09 2017)
	STEL	150 ppm	651 mg/m3	Canada. Quebec OELs. (Ministry of Labor - Regulation respecting occupational health and safety), as amended (09 2017)
	TWA	100 ppm		Canada. Quebec OELs. (Ministry of Labor - Regulation respecting occupational health and safety), as amended (03 2020)



Calcium oxide	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)
Calcium oxide	TWA		2 mg/m3	Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents), as amended (11 2010)
Calcium oxide	TWA		2 mg/m3	Canada. Quebec OELs. (Ministry of Labor - Regulation respecting occupational health and safety), as amended (09 2017)
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)
Ethylbenzene	TWA	20 ppm		Canada. British Columbia OELs. (Occupational Exposure Limits for Chemical Biological Substances, Occupational Health and Safety Regulation 296/97, as amended) (09 2011)
Ethylbenzene	TWA	20 ppm		Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents), as amended (06 2015)
Ethylbenzene	TWA	20 ppm		Canada. Quebec OELs. (Ministry of Labor - Regulation respecting occupational health and safety), as amended (03 2020)
Isophorone Diisocyanate	TWA	0.005 ppm		Canada. British Columbia OELs. (Occupational Exposure Limits for Chemical Biological Substances, Occupational Health and Safety Regulation 296/97, as amended) (07 2007)
	CEILING	0.01 ppm		Canada. British Columbia OELs. (Occupational Exposure Limits for Chemical Biological Substances, Occupational Health and Safety Regulation 296/97, as amended) (07 2007)
Isophorone Diisocyanate	TWA	0.005 ppm		Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents), as amended (06 2015)
	CEV	0.02 ppm		Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents), as amended (06 2015)
Isophorone Diisocyanate	TWA	0.005 ppm 0	.045 mg/m3	Canada. Quebec OELs. (Ministry of Labor - Regulation respecting occupational health and safety), as amended (09 2017)
	TWA	0.005 ppm		Canada. Quebec OELs. (Ministry of Labor - Regulation respecting occupational health and safety), as amended (03 2020)
Hydrotreated heavy naphthenic distillate - Mist.	TWA		1 mg/m3	Canada. British Columbia OELs. (Occupational Exposure Limits for Chemical Biological Substances, Occupational Health and Safety Regulation 296/97, as amended) (05 2013)
Hydrotreated heavy naphthenic distillate - Inhalable fraction.	TWA		5 mg/m3	Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents), as amended (06 2015)
Hydrotreated heavy naphthenic distillate - Mist.	STEL		10 mg/m3	Canada. Quebec OELs. (Ministry of Labor - Regulation respecting occupational health and safety), as amended (09 2017)
	TWA		5 mg/m3	Canada. Quebec OELs. (Ministry of Labor - Regulation respecting occupational health and safety), as amended (09 2017)



	TWA	0.2 mg/m3	Canada. British Columbia OELs. (Occupational Exposure Limits for Chemical Biological Substances, Occupational Health and Safety Regulation 296/97, as amended) (06 2020)
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Chemical name	Туре	Exposure Limit Values	Source
Calcium carbonate - Total dust.	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)
Calcium carbonate - 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)
Calcium carbonate - 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)
Calcium carbonate - Total dust.	TWA	10 mg/m3	Canada. Quebec OELs. (Ministry of Labor - Regulation respecting occupational health and safety), as amended (09 2017)
	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)
Calcium carbonate - Inhalable particles.	TWA	10 mg/m3	Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents), as amended (01 2020)
Calcium carbonate - Respirable fraction.	TWA	3 mg/m3	Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents), as amended (01 2020)
Calcium carbonate - 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)
Calcium carbonate - Respirable particles.	TWA	3 mg/m3	Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents), as amended (01 2020)
Calcium carbonate - Inhalable fraction.	TWA	10 mg/m3	Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents), as amended (01 2020)
Polyvinyl chloride - Respirable.	TWA	1 mg/m3	Canada. British Columbia OELs. (Occupational Exposure Limits for Chemical Biological Substances, Occupational Health and Safety Regulation 296/97, as amended) (07 2007)
Polyvinyl chloride - Respirable fraction.	TWA	1 mg/m3	Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents), as amended (11 2010)
Polyvinyl chloride - Total dust.	TWA	10 mg/m3	Canada. Quebec OELs. (Ministry of Labor - Regulation respecting occupational health and safety), as amended (09 2017)
Calcium Carbonate (Limestone) - Total dust.	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)
	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)



Calcium Carbonate (Limestone) - 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)
Calcium Carbonate (Limestone) - Total dust.	TWA		10 mg/m3	Canada. Quebec OELs. (Ministry of Labor - Regulation respecting occupational health and safety), as amended (09 2017)
Xylene	STEL	150 ppm		Canada. British Columbia OELs. (Occupational Exposure Limits for Chemical Biological Substances, Occupational Health and Safety Regulation 296/97, as amended) (07 2007)
	TWA	100 ppm		Canada. British Columbia OELs. (Occupational Exposure Limits for Chemical Biological Substances, Occupational Health and Safety Regulation 296/97, as amended) (07 2007)
Xylene	STEL	150 ppm		Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents), as amended (11 2010)
	TWA	100 ppm		Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents), as amended (11 2010)
Xylene	TWA	100 ppm	434 mg/m3	Canada. Quebec OELs. (Ministry of Labor - Regulation respecting occupational health and safety), as amended (09 2017)
	STEL	150 ppm	651 mg/m3	Canada. Quebec OELs. (Ministry of Labor - Regulation respecting occupational health and safety), as amended (09 2017)
	TWA	100 ppm		Canada. Quebec OELs. (Ministry of Labor - Regulation respecting occupational health and safety), as amended (03 2020)





Calcium oxide	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)
Calcium oxide	TWA		2 mg/m3	Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents), as amended (11 2010)
Calcium oxide	TWA		2 mg/m3	Canada. Quebec OELs. (Ministry of Labor - Regulation respecting occupational health and safety), as amended (09 2017)
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)
Diisodecyl phthalate	TWA		5 mg/m3	Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents), as amended (11 2010)
Ethylbenzene	TWA	20 ppm		Canada. British Columbia OELs. (Occupational Exposure Limits for Chemical Biological Substances, Occupational Health and Safety Regulation 296/97, as amended) (09 2011)
Ethylbenzene	TWA	20 ppm		Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents), as amended (06 2015)
Ethylbenzene	TWA	20 ppm		Canada. Quebec OELs. (Ministry of Labor - Regulation respecting occupational health and safety), as amended (03 2020)
Isophorone Diisocyanate	TWA	0.005 ppm		Canada. British Columbia OELs. (Occupational Exposure Limits for Chemical Biological Substances, Occupational Health and Safety Regulation 296/97, as amended) (07 2007)
	CEILING	0.01 ppm		Canada. British Columbia OELs. (Occupational Exposure Limits for Chemical Biological Substances, Occupational Health and Safety Regulation 296/97, as amended) (07 2007)
Isophorone Diisocyanate	TWA	0.005 ppm		Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents), as amended (06 2015)
	CEV	0.02 ppm		Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents), as amended (06 2015)
Isophorone Diisocyanate	TWA	0.005 ppm	0.045 mg/m3	Canada. Quebec OELs. (Ministry of Labor - Regulation respecting occupational health and safety), as amended (09 2017)
	TWA	0.005 ppm		Canada. Quebec OELs. (Ministry of Labor - Regulation respecting occupational health and safety), as amended (03 2020)



I I budgetge ete dibe e co.	I TIAVA	4	Canada British Calumbia OFLa (Occurational
Hydrotreated heavy naphthenic distillate - Mist.	TWA	1 mg/m3	Canada. British Columbia OELs. (Occupational Exposure Limits for Chemical Biological Substances, Occupational Health and Safety Regulation 296/97, as amended) (05 2013)
Hydrotreated heavy naphthenic distillate - Inhalable fraction.	TWA	5 mg/m3	Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents), as amended (06 2015)
Hydrotreated heavy naphthenic distillate - Mist.	STEL	10 mg/m3	Canada. Quebec OELs. (Ministry of Labor - Regulation respecting occupational health and safety), as amended (09 2017)
	TWA	5 mg/m3	Canada. Quebec OELs. (Ministry of Labor - Regulation respecting occupational health and safety), as amended (09 2017)
	TWA	0.2 mg/m3	Canada. British Columbia OELs. (Occupational Exposure Limits for Chemical Biological Substances, Occupational Health and Safety Regulation 296/97, as amended) (06 2020)
Stearic acid - Respirable fraction.	TWA	3 mg/m3	Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents), as amended (01 2020)
Stearic acid - Respirable.	TWA	3 mg/m3	Canada. British Columbia OELs. (Occupational Exposure Limits for Chemical Biological Substances, Occupational Health and Safety Regulation 296/97, as amended) (01 2021)
Stearic acid - Inhalable	TWA	10 mg/m3	Canada. British Columbia OELs. (Occupational Exposure Limits for Chemical Biological Substances, Occupational Health and Safety Regulation 296/97, as amended) (01 2021)
Stearic acid	TWA	10 ppm	Canada. Quebec OELs. (Ministry of Labor - Regulation respecting occupational health and safety), as amended (03 2020)
Dibutyl tin dilaurate - as Sn	STEL	0.2 mg/m3	Canada. British Columbia OELs. (Occupational Exposure Limits for Chemical Biological Substances, Occupational Health and Safety Regulation 296/97, as amended) (07 2007)
	TWA	0.1 mg/m3	Canada. British Columbia OELs. (Occupational Exposure Limits for Chemical Biological Substances, Occupational Health and Safety Regulation 296/97, as amended) (07 2007)
Dibutyl tin dilaurate - as Sn	TWA	0.1 mg/m3	Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents), as amended (11 2010)
Dibutyl tin dilaurate - as Sn	STEL	0.2 mg/m3	Canada. Quebec OELs. (Ministry of Labor - Regulation respecting occupational health and safety), as amended (09 2017)
	TWA	0.1 mg/m3	Canada. Quebec OELs. (Ministry of Labor - Regulation respecting occupational health and safety), as amended (09 2017)





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)	
Toluene	TWA	20 ppm		Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents), as amended (11 2010)	
Toluene	TWA	20 ppm		Canada. British Columbia OELs. (Occupational Exposure Limits for Chemical Biological Substances, Occupational Health and Safety Regulation 296/97, as amended) (07 2007)	
Toluene	TWA	50 ppm	188 mg/m3	Canada. Quebec OELs. (Ministry of Labor - Regulation respecting occupational health and safety), as amended (09 2017)	
	TWA	50 ppm		Canada. Quebec OELs. (Ministry of Labor - Regulation respecting occupational health and safety), as amended (03 2020)	
Diisodecyl phthalate (mixed ls)	TWA		5 mg/m3	Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents), as amended (08 2017)	
Stannous octoate - as Sn	TWA		0.1 mg/m3	Canada. British Columbia OELs. (Occupational Exposure Limits for Chemical Biological Substances, Occupational Health and Safety Regulation 296/97, as amended) (07 2018)	
	STEL		0.2 mg/m3	Canada. British Columbia OELs. (Occupational Exposure Limits for Chemical Biological Substances, Occupational Health and Safety Regulation 296/97, as amended) (07 2018)	
Stannous octoate - as Sn	TWA		0.1 mg/m3	Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents), as amended (08 2017)	
Stannous octoate - as Sn	TWA		0.1 mg/m3	Canada. Quebec OELs. (Ministry of Labor - Regulation respecting occupational health and safety), as amended (09 2017)	
	STEL		0.2 mg/m3	Canada. Quebec OELs. (Ministry of Labor - Regulation respecting occupational health and safety), as amended (09 2017)	



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)	
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)	



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Zirconium dioxide -	TWA	3 mg/m3	Canada. Ontario OELs. (Control of Exposure
Respirable fraction.			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 an safety), as amended (04 2019)
Zirconium dioxide - Inhalable fraction.	TWA	10 mg/m3	Canada. Ontario OELs. (Control of Exposure Biological or Chemical Agents), as amended (01 2020)
Zirconium dioxide - Inhalable particles.	TWA	10 mg/m3	Canada. Ontario OELs. (Control of Exposure Biological or Chemical Agents), as amended (01 2020)
Zirconium dioxide - Respirable fraction.	TWA	3 mg/m3	Canada. British Columbia OELs. (Occupation 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. (Occupation 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 Biological or Chemical Agents), as amended (01 2020)
Amorphous silica - Total	TWA	4 mg/m3	Canada. British Columbia OELs. (Occupation Exposure Limits for Chemical Biological Substances, Occupational Health and Safety Regulation 296/97, as amended) (07 2007)
Amorphous silica - Respirable.	TWA	1.5 mg/m3	Canada. British Columbia OELs. (Occupation Exposure Limits for Chemical Biological 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 occupational health an safety), as amended (09 2017)
Amorphous silica - Respirable fraction.	TWA	3 mg/m3	Canada. British Columbia OELs. (Occupation 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 Biological or Chemical Agents), as amended (01 2020)
Amorphous silica - Respirable particles.	TWA	3 mg/m3	Canada. Ontario OELs. (Control of Exposure 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 an safety), as amended (03 2020)
Amorphous silica - Respirable fraction.	TWA	3 mg/m3	Canada. Ontario OELs. (Control of Exposure Biological or Chemical Agents), as amended

dust.		Ç .	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)	
Amorphous silica - Total	TWA	4 mg/m3	Canada. British Columbia OELs. (Occupational Exposure Limits for Chemical Biological Substances, Occupational Health and Safety Regulation 296/97, as amended) (07 2007)	
Amorphous silica - Respirable.	TWA	1.5 mg/m3	Canada. British Columbia OELs. (Occupational Exposure Limits for Chemical Biological Substances, Occupational Health and Safety Regulation 296/97, as amended) (07 2007)	
Amorphous silica - Respirable dust.	TWA	6 mg/m3	Canada. Quebec OELs. (Ministry of Labor - Regulation respecting occupational health and safety), as amended (09 2017)	
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)	
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)	





1,2,4-Trimethylbenzene	TWA	25 ppm	123 mg/m3	Canada. Alberta OELs (Occupational Health & Safety Code, Schedule 1, Table 2), as amended (07 2009)	
1,2,4-Trimethylbenzene	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)	
1,2,4-Trimethylbenzene	TWA	25 ppm		Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents), as amended (11 2010)	
1,2,4-Trimethylbenzene	TWA	25 ppm		Canada. Quebec OELs. (Ministry of Labor - Regulation respecting occupational health and safety), as amended (03 2020)	
1,3,5-Trimethylbenzene	TWA	25 ppm		Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents), as amended (11 2010)	
1,3,5-Trimethylbenzene	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)	
2-Ethylhexanoic acid - Vapor and aerosol, inhalable.	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)	
2-Ethylhexanoic acid - Inhalable fraction and vapor.	TWA		5 mg/m3	Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents), as amended (11 2010)	
Methanol	TWA	200 ppm		Canada. British Columbia OELs. (Occupational Exposure Limits for Chemical Biological Substances, Occupational Health and Safety Regulation 296/97, as amended) (07 2007)	
Methanol	TWA	200 ppm		Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents), as amended (11 2010)	
	STEL	250 ppm		Canada. British Columbia OELs. (Occupational Exposure Limits for Chemical Biological Substances, Occupational Health and Safety Regulation 296/97, as amended) (07 2007)	
	STEL	250 ppm		Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents), as amended (11 2010)	
Methanol	STEL	250 ppm	328 mg/m3	Canada. Quebec OELs. (Ministry of Labor - Regulation respecting occupational health and safety), as amended (09 2017)	
	TWA	200 ppm	262 mg/m3	Canada. Quebec OELs. (Ministry of Labor - Regulation respecting occupational health and safety), as amended (09 2017)	
	TWA	200 ppm		Canada. Quebec OELs. (Ministry of Labor - Regulation respecting occupational health and safety), as amended (03 2020)	
Benzene	STEL	2.5 ppm		Canada. British Columbia OELs. (Occupational Exposure Limits for Chemical Biological Substances, Occupational Health and Safety Regulation 296/97, as amended) (07 2007)	
	TWA	0.5 ppm		Canada. British Columbia OELs. (Occupational Exposure Limits for Chemical Biological Substances, Occupational Health and Safety Regulation 296/97, as amended) (07 2007)	
Benzene	TWA	0.5 ppm		Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents), as amended (06 2015)	
	STEL	2.5 ppm		Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents), as amended (06 2015)	



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Benzene	TWA	1 ppm	3 mg/m3	Canada. Quebec OELs. (Ministry of Labor - Regulation respecting occupational health and safety), as amended (09 2017)
	STEL	5 ppm	15.5 mg/m3	Canada. Quebec OELs. (Ministry of Labor - Regulation respecting occupational health and safety), as amended (09 2017)
	TWA	1 ppm		Canada. Quebec OELs. (Ministry of Labor - Regulation respecting occupational health and safety), as amended (03 2020)

**Biological Limit Values** 

Chemical Identity	Exposure Limit Values	Source
Xylene (Methylhippuric acids: Sampling time: End of shift.)	1.5 g/g (Creatinine in urine)	ACGIH BEI (03 2013)
Ethylbenzene (Sum of mandelic acid and phenylglyoxylic acid: Sampling time: End of shift.)	0.15 g/g (Creatinine in urine)	ACGIH BEI (02 2014)

Appropriate Engineering Controls

Mechanical ventilation or local exhaust ventilation may be required.

Observe good industrial hygiene practices. Observe occupational exposure

limits and minimize the risk of inhalation of dust.

Individual protection measures, such as personal protective equipment

**Eye/face protection:** Wear safety glasses with side shields (or goggles).

**Skin Protection** 

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

**Skin and Body Protection:** Wear suitable protective clothing. Wear chemical-resistant gloves,

footwear, and protective clothing appropriate for the risk of exposure. Contact health and safety professional or manufacturer for specific

information.

**Respiratory Protection:** If engineering controls do not maintain airborne concentrations below

recommended exposure limits (where applicable) or to an acceptable level

(in countries where exposure limits have not been established), an approved respirator must be worn. Air-purifying respirator with an

appropriate, government approved (where applicable), air-purifying filter,

cartridge or canister. Contact health and safety professional or

manufacturer for specific information.

**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. Contaminated work clothing should not be allowed out of the

workplace. Avoid contact with skin.

# 9. Physical and chemical properties



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**Appearance** 

Flash Point:

**Physical state:** solid solid solid Form: Paste Paste Paste Color: Grey-yellowish Odor: Mild, Mild, Mild **Odor threshold:** No data available. No data available. :Ha Melting point/freezing point: No data available. Initial boiling point and boiling range: No data available.

Evaporation rate: Slower than n-Butyl Acetate Slower than n-Butyl Acetate

No data available.

Slower than n-Butyl Acetate

Flammability (solid, gas): No No No No Upper/lower limit on flammability or explosive limits

Flammability limit - upper (%):

Flammability limit - lower (%):

Explosive limit - upper:

Explosive limit - lower:

No data available.

No data available.

No data available.

No data available.

Vapor density: Vapors are heavier than air and may travel along the floor and

in the bottom of containers. Vapors are heavier than air and may travel along the floor and in the bottom of containers. Vapors are heavier than air and may travel along the floor and

in the bottom of containers.

Relative density: 1.3297

Solubility(ies)

Solubility in water: Insoluble in water

Insoluble in water Insoluble in water

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.



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Incompatible Materials: Alcohols. Amines. Strong acids. Avoid contact with oxidizing agents (e.g.

nitric acid, peroxides and chromates). Strong bases. Water, moisture. Alcohols. Amines. Strong acids. Avoid contact with oxidizing agents (e.g. nitric acid, peroxides and chromates). Strong bases. Water, moisture. Alcohols. Amines. Strong acids. Avoid contact with oxidizing agents (e.g. nitric acid, peroxides and chromates). Strong bases. Water, moisture.

**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:** May be harmful in contact with skin. Causes mild skin irritation. May cause

an allergic skin reaction.

**Eye contact:** Eye contact is possible and should be avoided.

**Ingestion:** May be harmful if swallowed.

### 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:** ATEmix: 4,933.82 mg/kg

**Dermal** 

**Product:** ATEmix: 4,299.72 mg/kg

Inhalation

**Product:** ATEmix: 25.84 mg/l

ATEmix: 4.09 mg/l

Repeated dose toxicity

**Product:** No data available.

Skin Corrosion/Irritation

**Product:** No data available.



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Specified substance(s):

Calcium carbonate in vivo (Rabbit): Not irritant, 24 - 72 h

Xylene in vivo (Rat): Slightly irritating, 24 h

Titanium dioxide in vivo (Rabbit): Not irritant, 24 h

Hydrotreated heavy naphthenic distillate

in vivo (Rabbit): Category 2, 24 - 72 h

Stearic acid in vivo (Rabbit): Not irritant, 24 - 72 h

Dibutyl tin dilaurate In vitro (Human, in vitro reconstituted epidermis model): Not irritant, 15 min

Serious Eye Damage/Eye Irritation

**Product:** No data available.

Specified substance(s):

Calcium carbonate Rabbit, 24 - 72 hrs: Not irritating

Xylene Rabbit, 24 hrs: Moderately irritating

Titanium dioxide Rabbit, 24 hrs: Not irritating

Ethylbenzene Rabbit, 7 d: Slightly irritating

Hydrotreated heavy naphthenic distillate

Rabbit, 24 hrs: Not irritating

Stearic acid Rabbit, 27 - 72 hrs: Not irritating

Dibutyl tin dilaurate Rabbit, 24 hrs: Highly irritating

Respiratory or Skin Sensitization

**Product:** May cause allergy or asthma symptoms or breathing difficulties if inhaled.

May cause sensitization by inhalation.

Carcinogenicity

**Product:** Suspected of causing cancer.

IARC Monographs on the Evaluation of Carcinogenic Risks to Humans:

Titanium dioxide Overall evaluation: Possibly carcinogenic to humans.

Ethylbenzene Overall evaluation: Possibly carcinogenic to humans.

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

No carcinogenic components identified



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

Polyvinyl chloride

Cancer

**Germ Cell Mutagenicity** 

In vitro

**Product:** No data available.

In vivo

**Product:** No data available.

Reproductive toxicity

**Product:** May damage fertility or the unborn child.

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: No data available.

# 12. Ecological information

# **Ecotoxicity:**

### Acute hazards to the aquatic environment:

Fish

**Product:** No data available.

Specified substance(s):

Xylene LC 50 (Fathead minnow (Pimephales promelas), 96 h): 13.41 mg/l Mortality

Titanium dioxide LC 50 (Pimephales promelas, 96 h): 8.2 mg/l Read-across from supporting

substance (structural analogue or surrogate), Supporting study

Diisodecyl phthalate LC 50 (Fathead minnow (Pimephales promelas), 96 h): > 0.47 mg/l Mortality

Ethylbenzene LC 50 (Oncorhynchus mykiss, 96 h): 4.2 mg/l Experimental result, Key study

Isophorone Diisocyanate LC 50 (Cyprinus carpio, 96 h): > 208 mg/l Experimental result, Key study



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Hydrotreated heavy naphthenic distillate

LL 50 (Pimephales promelas, 96 h): > 100 mg/l Experimental result, Key

study

Iodopropynyl 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

Diisodecyl phthalate EC 50 (Opossum shrimp (Americamysis bahia), 96 h): > 0.08 mg/l Mortality

Ethylbenzene EC 50 (Daphnia magna, 48 h): 1.8 - 2.4 mg/l Experimental result, Key study

Isophorone Diisocyanate EC 50 (Daphnia magna, 48 h): 27 mg/l Experimental result, Key study

Hydrotreated heavy naphthenic distillate

LL 50 (Gammarus pulex, 72 h): > 10,000 mg/l Experimental result, Key

study

LL 50 (Gammarus pulex, 96 h): > 10,000 mg/l Experimental result, Key

study

LL 50 (Gammarus pulex, 48 h): > 10,000 mg/l Experimental result, Key

study

NOAEL (Daphnia magna, 48 h): >= 10,000 mg/l Experimental result, Key

study

LL 50 (Gammarus pulex, 24 h): > 10,000 mg/l Experimental result, Key

study

Stearic acid EC 50 (Daphnia magna, 48 h): > 4.8 mg/l Read-across based on grouping of

substances (category approach), Weight of Evidence study

Dibutyl tin dilaurate EC 50 (Water flea (Daphnia magna), 24 h): 0.66 mg/l Intoxication

EC 50 (Daphnia magna, 48 h): 1.7 - 3.4 mg/l Experimental result, Key study

### Chronic hazards to the aquatic environment:

**Fish** 

**Product:** No data available.

Specified substance(s):

Hydrotreated heavy naphthenic distillate

NOAEL (Oncorhynchus mykiss): >= 1,000 mg/l QSAR QSAR, Supporting

study

**Aquatic Invertebrates** 

**Product:** No data available.

Specified substance(s):

Ethylbenzene NOAEL (Ceriodaphnia dubia): 1 mg/l Other, Key study

Isophorone Diisocyanate NOAEL (Daphnia magna): 3 mg/l Read-across from supporting substance

(structural analogue or surrogate), Key study

Hydrotreated heavy naphthenic distillate

NOAEL (Daphnia magna): >= 1,000 mg/l Experimental result, Supporting

study

NOAEL (Daphnia magna): >= 1,000 mg/l Experimental result, Supporting



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study

NOAEL (Daphnia magna): >= 1 mg/l Experimental result, Supporting study EC 50 (Daphnia magna): > 1,000 mg/l Experimental result, Supporting study EC 50 (Daphnia magna): > 1,000 mg/l Experimental result, Supporting study

**Toxicity to Aquatic Plants** 

Product:

No data available.

### Persistence and Degradability

Biodegradation

**Product:** No data available.

Specified substance(s):

Ethylbenzene 70 - 80 % (28 d) Detected in water. Experimental result, Key study

Isophorone Diisocyanate > 0 % (28 d) Detected in water. Experimental result, Key study

Hydrotreated heavy naphthenic distillate

2 - 4 % (28 d) Detected in water. Experimental result, Supporting study
2 - 8 % (28 d) Detected in water. Experimental result, Supporting study
31 % (28 d) Detected in water. Read-across based on grouping of

substances (category approach), Supporting study

31 % (28 d) Detected in water. Experimental result, Supporting study

Dibutyl tin dilaurate 23 % (39 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):

Xylene Oncorhynchus mykiss, Aquatic sediment Experimental result, Key study

Oncorhynchus mykiss, Aquatic sediment Experimental result, Key study Oncorhynchus mykiss, Aquatic sediment Experimental result, Key study

Ethylbenzene Selenastrum capricornutum, Aquatic sediment Other, Supporting study

Carassius auratus, Aquatic sediment Other, Supporting study Crassostrea virginica; Mytilus edulis; Tapes semidecussata, Aquatic

sediment Other, Supporting study

Oncorhynchus kisutch, Aquatic sediment Other, Key study Platichthys stellatus, Aquatic sediment Other, Supporting study

Isophorone Diisocyanate Aquatic sediment QSAR, Not specified

Aquatic sediment QSAR, Not specified

Partition Coefficient n-octanol / water (log Kow)

**Product:** No data available.

Specified substance(s):

Xylene Log Kow: 2.77 - 3.15 No Not specified, Not specified



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Diisodecyl phthalate Log Kow: 10.36

Ethylbenzene Log Kow: 3.15

Log Kow: 3.13 - 3.14 No Other, Supporting study

Isophorone Diisocyanate Log Kow: 4.75

Stearic acid Log Kow: 8.23

Dibutyl tin dilaurate Log Kow: 3.12

**Mobility in soil:** No data available.

Other adverse effects: Harmful to aquatic life with long lasting effects.

# 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.



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

Chemical Identity OSHA hazard(s)

Polyvinyl chloride Blood

Liver Cancer Flammability

Central nervous system

Crystalline Silica (Quartz)/ Silica Sand

kidney effects lung effects

immune system effects

Cancer

Benzene Blood

respiratory tract irritation Central nervous system

Flammability Cancer Skin Aspiration Eye

### CERCLA Hazardous Substance List (40 CFR 302.4):

Chemical Identity Reportable quantity

Xylene 100 lbs.
Ethylbenzene 1000 lbs.
Toluene 1000 lbs.
Methanol 5000 lbs.
Benzene 10 lbs.

### Superfund Amendments and Reauthorization Act of 1986 (SARA)

### **Hazard categories**

Immediate (Acute) Health Hazards Delayed (Chronic) Health Hazard Acute toxicity (any route or exposure) Respiratory or Skin Sensitization

Carcinogenicity
Reproductive toxicity

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

Not regulated.

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

<u>Chemical Identity</u> % by weight

Xylene % Ethylbenzene %

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

None present or none present in regulated quantities.



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

Chemical IdentityReportable quantityXyleneReportable quantity: lbs.

# **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

Polyvinyl chloride

Calcium Carbonate (Limestone)

Xylene

Calcium oxide

Titanium dioxide

Ethylbenzene

Hydrotreated heavy naphthenic distillate

### US. Massachusetts RTK - Substance List

# **Chemical Identity**

Calcium carbonate

Calcium Carbonate (Limestone)

Xvlene

Titanium dioxide

Isophorone Diisocyanate

Crystalline Silica (Quartz)/ Silica Sand

# US. Pennsylvania RTK - Hazardous Substances

### **Chemical Identity**

Calcium carbonate

Calcium Carbonate (Limestone)

Xylene

Calcium oxide

Titanium dioxide

# US. Rhode Island RTK

### **Chemical Identity**

Calcium carbonate

Polyvinyl chloride

Calcium Carbonate (Limestone)

Xylene

Titanium dioxide

# International regulations

# **Montreal protocol**

Not applicable

# Stockholm convention

Not applicable



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# **Rotterdam convention**

Not applicable

# **Kyoto protocol**

Not applicable

VOC:

Regulatory VOC (less water and : 40 g/l

exempt solvent)

VOC Method 310 : 2.99 %

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**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.

US TSCA Inventory: All components in this product are

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.

Mexico INSQ: One or more components in this

29/30 00000022951



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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:** 01/27/2022

Version #: 1.2

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.