



# Safety Data Sheet

## NEXUS WHT PRECAT, 20



### 1. Identification

<b>Product identifier</b>	NEXUS WHT PRECAT, 20		
<b>Product code</b>	NEXW-1520		
<b>Other means of identification</b>	None.		
<b>Recommended use of the chemical and restrictions on use</b>	A protective and/or decorative finish or accompanying paint product. Not recommended for any other use not detailed on product data sheet or label.		
<b>Manufacturer</b>	GEMINI INDUSTRIES, INC. 2300 Holloway Drive El Reno, OK 73036 USA  Tel. 1-800-262-5710 Fax 1-405-262-9310 <a href="http://www.gemini-coatings.com">www.gemini-coatings.com</a>	<b>Distributor</b>	Gemini Industries, Inc. 850 Flint Road Toronto, Ontario Canada M3J 2T7  Tel. 1-800-262-5710
<b>Emergency phone number</b>	24-hour Emergency (Spill, Leak, Exposure or accident) INFOTRAC 800-535-5053 Outside USA, Call Collect 1-352-323-3500 (French & English)  HAZMAT Response and MSDS Help: EMI 800-510-8510		

### 2. Hazard identification

<b>Summary</b>	Highly flammable liquid and vapour. Keep away from heat, sparks and open flame. Avoid contact with skin, eyes and clothing. Do not breathe vapours, mists or aerosols. Do not ingest. If ingested consult physician immediately and show this Safety Data Sheet. Wear eye protection, gloves and other protective clothing that are adapted to the task being performed and the risks involved.
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#### WHMIS 2015/OSHA HCS 2012/GHS



Flammable liquids (Category 2)  
 Skin corrosion/irritation (Category 2)  
 Serious eye damage/eye irritation (Category 1)  
 Germ cell mutagenicity (Category 1B)  
 Carcinogenicity (Category 1B)  
 Reproductive toxicity (Category 1B)  
 Specific target organ toxicity, single exposure (Category 3)  
 Specific target organ toxicity, repeated exposure (Category 2)

#### DANGER

H225: Highly flammable liquid and vapour  
 H318: Causes serious eye damage  
 H350: May cause cancer if inhaled  
 H340: May cause genetic defects  
 H360D: May damage the unborn child  
 H315: Causes skin irritation  
 H335: May cause respiratory irritation  
 H336: May cause drowsiness or dizziness  
 H373: May cause damage to organs through prolonged or repeated exposure by inhalation

P201: Obtain special instructions before use.  
P202: Do not handle until all safety precautions have been read and understood.  
P210: Keep away from heat, sparks, open flames and other ignition sources. No smoking.  
P233: Keep container tightly closed.  
P240: Ground or bond container and receiving equipment.  
P241: Use explosion-proof electrical equipment.  
P242: Use only non-sparking tools.  
P243: Take precautionary measures against static discharge.  
P260: Do not breathe vapours.  
P264: Wash face, hands and any exposed skin thoroughly after handling.  
P271: Use only outdoors or in a well-ventilated area.  
P273: Avoid release to the environment.  
P280: Wear protective gloves, protective clothing and eye protection.  
P308+313: IF exposed or concerned: Get medical attention.  
P303+361+353: IF ON SKIN (or hair): Remove immediately all contaminated clothing. Rinse skin with water and soap or take a shower if necessary.  
P332+313: If skin irritation occurs: Get medical advice or attention.  
P304+340: IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.  
P312: Call a POISON CENTER or doctor/physician if you feel unwell.  
P305+351+338: IF IN EYES: Rinse continuously with water for several minutes. Remove contact lenses if present and easy to do. Continue rinsing.  
P310: Immediately call a POISON CENTER or a doctor.  
P362+364: Take off contaminated clothing and wash before reuse.  
P370+378: In case of fire: Use ABC dry chemical to extinguish.  
P403+P235+P233: Store in a well-ventilated place. Keep container tightly closed. Keep cool.  
P405: Store locked up.  
P501: Dispose of contents and container to a licensed chemical disposal agency in accordance with local, regional and national regulations.

3. Composition/information on ingredients		
Common name	CAS	Weight % content
n-Propanol	71-23-8	18 - 20 %
Titanium dioxide	13463-67-7	17 - 19 %
Butyl acetate (normal)	123-86-4	17 - 19 %
Nitrocellulose	9004-70-0	5 - 7 %
Urea, polymer with formaldehyde, isobutylated	68002-18-6	5 - 7 %
Xylene	1330-20-7	4 - 6 %
Dimethyl carbonate	616-38-6	4 - 6 %
Isobutyl isobutyrate	97-85-8	2.5 - 3.5 %
Isopropyl alcohol	67-63-0	1.5 - 2.5 %
Isobutyl alcohol	78-83-1	1.5 - 2.5 %
Ethylbenzene	100-41-4	0.5 - 1.5 %
Naphtha (petroleum), hydrotreated heavy (C6-C13)	64742-48-9	0.1 - 1 %
Naphtha (petroleum), hydrodesulfurized heavy	64742-82-1	0.1 - 1 %

4. First-aid measures	
Inhalation	Move person to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen by trained personnel. If a problem develops or persists, seek medical attention.

<b>Skin contact</b>	Wash skin with warm water and mild soap for at least 15 minutes. Remove contaminated clothing and wash before reuse. Avoid touching eyes with contaminated body parts. If a problem develops or persists, seek medical attention.
<b>Eye contact</b>	IMMEDIATELY! Flush with water for at least 15 minutes. Remove contact lenses if easy to do. Hold eyelids apart to rinse properly. If a problem develops or persists, seek medical attention.
<b>Ingestion</b>	DO NOT induce vomiting, unless recommended by medical personnel. Never give anything by mouth if victim is unconscious or convulsing. If victim is conscious wash out mouth with water and give 1-2 glasses of water to drink. If spontaneous vomiting occurs, keep head below hip level to prevent aspiration into the lungs. Seek medical attention or contact a Poison Centre immediately.
<b>Other</b>	No information available.
<b>Symptoms</b>	May cause severe eye irritation or eye damage. May cause redness, dryness, rash and skin irritation. May cause irritation to nose, throat and respiratory tract. Inhalation of vapours may cause central nervous system depression such as drowsiness, headache, dizziness, vertigo, nausea and fatigue.
<b>Notes to the physician</b>	Treat symptomatically. If gastric lavage is performed, suggest endotracheal and/or esophageal control. Danger from lung aspiration must be weighed against toxicity when considering emptying the stomach. Treatment of exposure should be directed at the control of symptoms and the clinical condition of the patient.

## 5. Fire-fighting measures

<b>Suitable extinguishing media</b>	Dried powder, chemical foam, carbon dioxide (CO <sub>2</sub> ), ABC fire extinguishing. Do not use a heavy water jet.
<b>Specific hazards arising from the chemical</b>	Highly flammable liquid and vapour. Vapours are heavier than air and may travel to an ignition source distant from the material handling point. May be ignited by heat, sparks, flame or static electricity. Do not apply to hot surfaces.
<b>Special protective equipment</b>	Firefighters must wear self contained breathing apparatus with full face mask. Firefighting suit may not be efficient against chemicals.
<b>Special protective actions for fire-fighters</b>	Use water spray to cool fire-exposed containers. Water spray can reduce the intensity of the flames. However, the water jets can spread the fire. Prevent run-off from fire control or dilution from entering streams, sewers or drinking water supply.

## 6. Accidental release measures

<b>Personal precautions, protective equipment and emergency procedures</b>	Do not touch spilled material. Make sure to wear personal protective equipment mentioned in this Safety Data Sheet.
<b>Environmental precautions</b>	Prevent entry in sewer and other enclosed area. For a large spill, consult the Department of Environment or the relevant authorities.
<b>Methods and materials for containment and cleaning up</b>	Remove sources of ignition. Ventilate the area well. Absorb with inert material (soil, sand, vermiculite) and place in an appropriate waste disposal clearly identified. Use non-sparking and antistatic tools. Dispose via a licensed waste disposal contractor. Finish cleaning the contaminated surface by rinsing with soapy water. PS: Rags and others materials soaked with paint or solvent may spontaneously catch fire if improperly store or discarded. Immediately after each use place rags and paper towels in a sealed water-filled metal container to prevent spontaneous combustion.

## 7. Handling and storage

<b>Precautions for safe handling</b>	Keep away from heat, sparks and open flame. Turn off all pilot lights, flames, stoves, heaters, electric motors, welding equipment and other sources of ignition. Use non-sparking and antistatic tools. Ground/bond all containers when transferring large quantities (5 gallons US or 20 L and more). Use
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	only in well ventilated area. Do not breathe vapors. Avoid contact with skin, eyes and clothing. Wear eye protection, gloves and other protective clothing that are adapted to the task being performed and the risks involved. Keep containers tightly closed when not in use. Do not eat, do not drink and do not smoke during use. Wash hands, forearms and face thoroughly after handling this compound and before eating, drinking or using toiletries. Remove contaminated clothing and wash before reuse.
<b>Conditions for safe storage, including any incompatibilities</b>	Storage and handling should follow the NFPA 30 Flammable and/or Combustible Liquids Code and the National Fire Code of Canada (NFCC). Store tightly closed and in properly labelled container in a dry, cool and well ventilated place. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Store away from oxidizing materials and incompatible materials (see section 10). Keep away from direct sunlight and heat.
<b>Storage temperature</b>	10 to 25°C (50 to 77°F)

## 8. Exposure controls/personal protection

Immediately Dangerous to Life or Health	Titanium dioxide: 5000 mg/m3. n-Propanol: 800 ppm. n-Butyl acetate: 1700 ppm. Xylenes: 900 ppm. Isopropyl alcohol: 2000 ppm. Isobutyl alcohol: 1600 ppm. Ethylbenzene: 800 ppm.				
n-Propanol	STEL TWA (8h)	250 ppm 100 ppm	614 mg/m³	RSST (Pc) ACGIH , BC, ON	
Titanium dioxide	TWA (8h) Total Dust	200 ppm	492 mg/m³	RSST (Pc)	
Butyl acetate (normal)	STEL	10 mg/m³	10 mg/m³	ACGIH , BC, ON, RSST	
		200 ppm		ACGIH , ON	
		200 ppm	950 mg/m³	RSST	
	TWA (8h)	20 ppm		BC	
		150 ppm		ACGIH , ON	
		150 ppm	713 mg/m³	RSST	
Xylene	STEL	150 ppm		ACGIH , BC, ON	
		150 ppm	651 mg/m³	RSST	
	TWA (8h)	100 ppm		ACGIH , BC, ON	
		100 ppm	434 mg/m³	RSST	
Isopropyl alcohol	STEL	400 ppm		ACGIH , BC, ON	
		500 ppm	1230 mg/m³	RSST	
	TWA (8h)	200 ppm		ACGIH , BC, ON	
		400 ppm	983 mg/m³	RSST	
Isobutyl alcohol	TWA (8h)	50 ppm		ACGIH , BC, ON	
		50 ppm	152 mg/m³	RSST	
Ethylbenzene	STEL	125 ppm	543 mg/m³	RSST	
	TWA (8h)	20 ppm		ACGIH , BC, ON	
		100 ppm	434 mg/m³	RSST	
Naphtha (petroleum), hydrotreated heavy (C6-C13)	TWA (8h) Mist		5 mg/m³	ACGIH , RSST	
		175 ppm	1200 mg/m³	Other	
Naphtha (petroleum), hydrodesulfurized heavy	TWA (8h)	100 ppm	525 mg/m³	ACGIH	
Appropriate engineering controls	Provide sufficient mechanical ventilation (general or local exhaust) to keep the airborne concentrations of vapours, mists, aerosols or dust below their respective occupational exposure limits.				

Individual protection measures	
<b>Eye</b>	Wear chemical splash goggles. If risk of contact with eyes or the face, wear a face shield.
<b>Hands</b>	Wear nitrile or neoprene gloves. Before using, user should confirm impermeability. Discard gloves with tears, pinholes, or signs of wear. Gloves must only be worn on clean hands.
<b>Skin</b>	Personal protective equipment for the body should be selected based on the task being performed and the risks involved. Wear normal work clothing covering arms and legs as required by employer code. If necessary, wear an apron or long-sleeve protective coverall suit.
<b>Respiratory</b>	Respiratory protection is not required for normal use. Where the conditions in the workplace require a respirator, it is necessary to follow a respiratory protection program. Moreover, respiratory protection equipment (RPE) must be selected, fitted, maintained and inspected in accordance with regulations and standard 29 CFR 1910.134 (OSHA), ANSI Z88.2 or CSA Z 94.11 (Canada) and approved by NIOSH/MSHA. In case of insufficient ventilation or in confined or enclosed space and for an assigned protection factor (APF) up to 10 times the exposure limit, wear a half mask respirator with organic vapour cartridges fitted with P100 filters. For an APF until maximum 100 times of exposure limit, wear a full face respirator mask with organic vapour cartridges and P100 filters.
<b>Feet</b>	Wear rubber boots to clean up a spill.

## 9. Physical and chemical properties

<b>Physical state</b>	Liquid	<b>Flammability</b>	Flammable
<b>Colour</b>	White or coloured	<b>Flammability limits</b>	N/Av.
<b>Odour</b>	Solvent	<b>Flash point</b>	0°C (32°F)
<b>Odour threshold</b>	N/Av.	<b>Auto-ignition temperature</b>	170°C (338°F)
<b>pH</b>	N/Av.	<b>Sensibility to electrostatic charges</b>	Yes
<b>Melting point</b>	N/Av.	<b>Sensibility to sparks and/or friction</b>	No
<b>Freezing point</b>	N/Av.	<b>Vapour density</b>	>1 (Air = 1)
<b>Boiling point</b>	78 to 214°C (172.4 to 417.2°F)	<b>Relative density</b>	1.10 to 1.11 kg/L (Water = 1)
<b>Solubility</b>	Partially soluble in water.	<b>Partition coefficient n-octanol/water</b>	N/Av.
<b>Evaporation rate</b>	> Butyl Acetate	<b>Decomposition temperature</b>	N/Av.
<b>Vapour pressure</b>	N/Av.	<b>Viscosity</b>	N/Av.
<b>Percent Volatile</b>	51.64%	<b>Molecular mass</b>	N/Ap.
N/Av.: Not Available    N/Ap.: Not Applicable    Und.: Undetermined    N/E: Not Established			

## 10. Stability and reactivity

<b>Reactivity</b>	No information available.
<b>Chemical stability</b>	Stable under recommended storage conditions.
<b>Possibility of hazardous reactions (including polymerizations)</b>	A dangerous reaction will not occur.

<b>Conditions to avoid</b>	Avoid heat, flame and sparks. Avoid contact with incompatible materials.
<b>Incompatible materials</b>	Strong oxidizing agents (e.g. chlorine, fluorine, nitric acid, perchloric acid, peroxides, nitrates, chlorates, chromates, permanganates and perchlorates), strong acids (e.g. hydrochloric acid, sulfuric acid, phosphoric acid), strong bases (e.g. hydroxides, solutions of ammonia, amines, carbonates).
<b>Hazardous decomposition products</b>	Under normal conditions of storage and use, hazardous decomposition products should not be produced.

## 11. Toxicological information

<b>Numerical measures of toxicity</b>	n-Propanol	Ingestion 5467 mg/kg	Mouse LD50
		1870 mg/kg	Rat LD50
		Inhalation 48 mg/l/4h	Mouse LC50
		Skin 4060 mg/kg	Rabbit LD50
	Butyl acetate (normal)	Ingestion 10768 mg/kg	Rat LD50
		Inhalation >32.5 mg/l/4h	Rat LC50
		Skin >17600 mg/kg	Rabbit LD50
	Titanium dioxide	Ingestion >10000 mg/kg	Rat LD50
		Inhalation >6.82 mg/l/4h	Rat LC50
		Skin >10000 mg/kg	Rabbit LD50
	Nitrocellulose	Ingestion >5000 mg/kg	Rat LD50
	Urea, polymer with formaldehyde, isobutylated	Ingestion >5000 mg/kg	Rat LD50
		Skin >5000 mg/kg	Rabbit LD50
	Dimethyl carbonate	Ingestion 13000 mg/kg	Rat LD50
		Inhalation >140 mg/l/4h	Rat LC50
		Skin >5000 mg/kg	Rabbit LD50
	Xylene	Ingestion 3523 mg/kg	Rat LD50
		Inhalation 27.6 mg/l/4h	Rat LC50
		Skin 3200 mg/kg	Rabbit LD50
	Isobutyl isobutyrate	Ingestion 12800 mg/kg	Rat LD50
		Inhalation >5000 ppm/6h	Rat LC50
		48.2 mg/l/4h	Rat LC50
		Skin >8600 mg/kg	Rabbit LD50
	Isobutyl alcohol	Ingestion 2460 mg/kg	Rat LD50
		Inhalation 19.2 mg/l/4h	Rat LC50
		Skin 3400 mg/kg	Rabbit LD50
	Isopropyl alcohol	Ingestion 3600 mg/kg	Mouse LD50
		5045 mg/kg	Rat LD50
		Inhalation 66.1 mg/l/4h	Rat LC50
		Skin 6280 mg/kg	Rat LD50
	Ethylbenzene	Ingestion 3500 mg/kg	Rat LD50
		Inhalation 17.3 mg/l/4h	Rat LC50
		Skin 15380 mg/kg	Rabbit LD50
	Naphtha (petroleum), hydrotreated heavy (C6-C13)	Ingestion >10000 mg/kg	Rat LD50
		Inhalation >8.5 mg/l/4h	Rat LC50
		Skin >3200 mg/kg	Rabbit LD50
	Naphtha (petroleum), hydrodesulfurized heavy	Ingestion >5000 mg/kg	Rat LD50
		Inhalation >7.63 mg/l/4h	Rat LC50
		Skin >2000 mg/kg	Rabbit LD50
<b>Likely routes of exposure</b>	Skin, eyes, inhalation, ingestion.		

<b>Delayed, immediate and chronic effects</b>	<p><b>Eye contact</b> May cause severe eye irritation or eye damage. The single application of n-propanol (0.1 ml) causes severe conjunctivitis, with attack of the iris, corneal opacity and ulceration. Causes severe irritation reversible within 21 days (OECD 405). Isobutyl alcohol is a severe eye irritant in rabbits (OECD 405). Eye Irritation/Corrosion, Rabbit (OECD TG 405): tests performed with the other ingredients of this mixture gave not irritating to irritating results.</p> <p><b>Skin contact</b> May cause redness, dryness, rash and skin irritation. Skin Irritation/Corrosion, Rabbit (OECD 404) : tests performed with each ingredient of this mixture gave not irritating to irritating results.</p> <p><b>Inhalation</b> Excessive inhalation is harmful. May cause respiratory tract irritation. Inhalation of vapours may cause central nervous system depression such as drowsiness, headache, dizziness, vertigo, nausea and fatigue. The severity of symptoms may vary depending on exposure conditions. Prolonged exposure may cause damage to damage to liver, kidneys, hearing organs, blood forming organs and central nervous system.</p> <p><b>Ingestion</b> Ingestion can cause abdominal pain, nausea, cramps, headache, dizziness, diarrhea and vomiting.</p> <p><b>Respiratory or skin sensitization</b> Ingredients present at levels greater than or equal to 0.1% of this product are not skin or respiratory sensitizers.</p> <p><b>IARC/NTP Classification</b> <b>Common name IARC NTP</b>  Titanium dioxide 2B -  Ethylbenzene 2B -  IARC : 1- Carcinogenic; 2A- Probably carcinogenic; 2B- Possibly carcinogenic.  NTP : K- Known to be carcinogens; R- Reasonably anticipated to be carcinogens.</p> <p><b>Carcinogenicity</b> Contains substances that can cause cancer based on animal data. The risk of cancer depends on duration and level of exposure. Titanium dioxide in dust form can cause cancer based on animal data. Although IARC has classified titanium dioxide as possibly carcinogenic to humans (2B), their summary concludes: No significant exposure to titanium dioxide is thought to occur during the use of products in which titanium dioxide is bound to other materials, such as paint and caulk. In the absence of specific test data, the classification of Naphtha petroleum (CAS no 64742-48-9 and CAS no 64742-82-1) should be determined based on the levels of benzene (CAS no. 71-43-2). This classification need not apply if it can be shown that the chemical contains less than 0.1% w/w benzene.</p> <p><b>Mutagenicity</b> Contains potential mutagen ingredient. In the absence of specific test data, the classification of Naphtha petroleum (CAS no 64742-48-9 and CAS no 64742-82-1) should be determined based on the levels of benzene (CAS no. 71-43-2). This classification need not apply if it can be shown that the chemical contains less than 0.1% w/w benzene.</p> <p><b>Reproductive toxicity</b> Major malformations have been reported in infants born of women who had been working with solvent-based paints (oil-based paints) during pregnancy. Therefore, long-term exposure to solvent-based paints that may occur in occupational life can affect a developing baby (American Journal of Industrial Medicine, 1980). Xylene overexposure may affect fetal development in laboratory animals by inhalation during pregnancy.</p> <p><b>Specific target organ toxicity - single exposure</b> Central nervous system, respiratory system.</p> <p><b>Specific target organ toxicity - repeated exposure</b> Hearing organs, central nervous system.</p>
<b>Interactive effects</b>	No information available for this product.
<b>Other information</b>	The oral and skin acute toxicity estimates (ATE) of the mixture were calculated to be greater than 2000 mg/kg. The acute toxicity estimate (ATE) by inhalation of the mixture was calculated to be greater than 20 mg/L/4h. These values are not classified according to WHMIS 2015 and OSHA HCS 2012.

## 12. Ecological information

<b>Ecological toxicity</b>	<p>Fish - Fathead minnow, Pimephales promelas - fresh water LC50 9640 mg/L; 96 h (Isopropyl alcohol)</p> <p>Aquatic Invertebrate - Crustaceans, Daphnia Magna EC50 3644 mg/L; 48 h (Isopropyl alcohol)</p> <p>Plant - Lettuce seed germination, Lactuca Sativa EC50 2100 mg/L; 72 h (Isopropyl alcohol)</p> <p>Algae, Pseudokirchneriella subcapitata EC50 579 mg/L; 96h (Nitrocellulose)</p> <p>Fish - Pimephales promelas [flow-through] LC50 18 mg/L; 96h (Butyl acetate)</p> <p>Aquatic Invertebrate - Daphnia magna EC50 44 mg/L; 48 h (n-Butyl acetate)</p> <p>Algae, Desmodesmus subspicatus EC50 675 mg/L; 72h (Butyl acetate)</p> <p>Fish - Pimephales promelas - Fresh water LC50 1370-1670 mg/L; 96 h (Isobutyl alcohol)</p> <p>Aquatic Invertebrate - Daphnia magna EC50 1300 mg/L; 48 h (Isobutyl alcohol)</p> <p>Fish - Oncorhynchus mykiss - Rainbow trout LC50 13.5-17.3 mg/L; 96 h (Xylene)</p> <p>Aquatic Invertebrate - Daphnia magna EC50 3.82 mg/L; 48 h (Xylene)</p> <p>Fish - Pimephales promelas [flow-through] LC50 4480 mg/L; 96 h (n-Propanol)</p> <p>Aquatic Invertebrate - Daphnia magna EC50 3642 mg/L; 48 h (n-Propanol)</p> <p>Fish - Pimephales promelas - Fresh water LC50 12.54 mg/L; 96h (Isobutyl isobutyrate)</p> <p>Aquatic Invertebrate - Daphnia magna EC50 55.8 mg/L; 96h (Isobutyl isobutyrate)</p> <p>Fish - Oncorhynchus mykiss - Rainbow trout LC50 4.2 mg/L; 96 h (Ethylbenzene)</p> <p>Aquatic Invertebrate - Shrimp - Crangon franciscorum EC50 0.49 mg/L; 96h (ethylbenzene)</p>
<b>Persistence</b>	Contains an or many ingredients that may be persistent in aquatic environment.
<b>Degradability</b>	<p>N-Propanol is readily biodegradable, 75% in 20 days (OECD 301F). n-Butyl acetate is readily biodegradable (96% in 28 days) OECD Guideline 301D. The term biodegradability, as such, is not applicable to inorganic compounds like Titanium dioxide. Degradation of Nitrocellulose involves complex dissociation into a wide variety of products. Since it is not soluble in water, the biodegradation by a sludge-soil mixture will be done over a long period of time (TOXNET). Urea, polymer with formaldehyde, isobutylated (CAS no 68002-18-6) is not readily biodegradable (61% in 28 days). Xylene in air is rapidly decomposed by photochemical processes, mainly through oxidation by hydroxyl free radicals as well as some decomposition by direct photolysis. The half-life time in air is estimated to be from 9.5 to 19.7 hours depending to the isomer. Xylene is readily biodegradable at 68% in 10 days and at 88% in 28 days (OECD Guideline 301F) with BOD5/COD ratio of 0.97 (IUCLID). Data specific to the biodegradation of Isobutyl isobutyrate were not located; however, based on similar aliphatic esters, Isobutyl isobutyrate is expected to biodegrade readily (SRC). Isopropyl alcohol is biodegradable, 49% in 5 days and 70% in 20 days (TOXNET). It does not undergo photolysis. Its atmospheric degradation (OH radical attack) in air has a half-time <math>T_{1/2}</math> of 18 to 25 hours. Isobutyl alcohol is readily biodegradable, 74% in 28 days (OCDE 301D). Ethylbenzene is biodegraded fairly rapidly by sewage or activated sludge (TOXNET).</p>
<b>Bioaccumulative potential</b>	<p>The Log Kow values &lt;0.4 and bioconcentration factor (BCF) values &lt;1 for n-propanol show no potential to bioaccumulate (IUCLID). n-Butyl acetate has a low potential for bioaccumulation based on estimated bioconcentration factors (BCF) of 15.3 and low partition coefficient (Log Kow 2.3). Xylene has Bioconcentration Factor (BCF) of 6 to 23.4 and a partition factor Log Kow of 3.1 to 3.2, depending to the isomer. These values suggest a low potential of bioaccumulation (TOXNET). This estimated Bioconcentration Factor (BCF) of 12.2 indicates that Isobutyl isobutyrate will not accumulate in aquatic organisms (TOXNET). The Log Kow value &lt;0.4 and bioconcentration factor (BCF) value &lt;1 for isopropyl alcohol show no potential to bioaccumulate (IUCLID). Isobutyl alcohol has a low potential to bioaccumulate with a bioconcentration factor (BCF) of 3 (TOXNET). Ethylbenzene has a low potential for bioaccumulation (BCF) of 1.1 to 15 were measured in four species of fish. It has low water solubility and a moderate partition coefficient (Log Kow of 3.15).</p>
<b>Mobility in soil</b>	<p>N-Propanol is soluble in water and will quickly evaporate into the air. There is no partition in the ground. n-Butyl acetate will be distributed to air (93.4%), water (5.78%), soil (0.792%), and sediment (&lt;0.1%). The Koc value of n-butyl acetate can be estimated to be 19, suggesting that it is expected to have very high mobility in soil. Xylene will rapidly evaporate into the atmosphere because of its low soil absorption and its low solubility in water. Koc values range from 39-365 for the individual isomers. These values suggest that xylenes are expected to have high to moderate mobility in soil (TOXNET). Isobutyl isobutyrate has a relatively high vapor pressure which suggests that evaporation from dry surfaces will occur. The estimation of Koc for Isobutyl isobutyrate can be estimated to be 98. This Koc indicates high soil mobility (TOXNET). Isopropyl alcohol is soluble in water and will quickly evaporate into the air. There is no partition in the ground. Isobutyl alcohol should have a very high mobility in soil with an estimated Koc value of 2.9 (TOXNET) and it distributes itself into the atmosphere (32.02%), water (67.92%), soil (0.03%), and</p>




	sediments (0.03%). Ethylbenzene is expected to have a moderate mobility in soil with an estimated Koc value of 520 (TOXNET).
<b>Other adverse effects</b>	This chemical does not deplete the ozone layer.

## 13. Disposal considerations

<b>Container</b>	Important! Prevent waste generation. Use in full. DO NOT dispose residue in sewers, streams or drinking water supply. DO NOT puncture, cut, heat or burn container, even after use. Paint residues including lacquer, thinner, stain, shellac, varnish, polish can be reprocessed everywhere there is a recycling program. Dispose via a licensed waste disposal contractor. Observe all federal, state/provincial and municipal regulations. If necessary consult the Department of Environment or the relevant authorities.
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## 14. Transport information

<b>UN Number</b>	UN 1263
<b>UN Proper Shipping Name</b>	PAINT
<b>Environmental hazards</b>	This material does not contain marine pollutant.
<b>Special precautions for user</b>	Permit required for transportation with proper DANGER placards displayed on vehicle.
<b>TDG - Transportation of Dangerous Goods (Canada)</b>	
<b>Transport hazard class(es)</b>	 Class 3
<b>Packing group</b>	II
<b>IMO/IMDG - International Maritime Transport</b>	
<b>Classification</b>	UN 1263. PAINT. Class 3, PG II. Emergency schedules (EmS-No) F-E, S-E
<b>IATA - International Air Transport Association</b>	
<b>Classification</b>	UN 1263. PAINT. Class 3, PG II.
These transportation classifications are provided as a customer service. As the shipper YOU remain responsible for complying with all applicable laws and regulations, including proper transportation classification and packaging. In addition, if a domestic exemption exists, it is the responsibility of the shipper to define the application of it.	

## 15. Regulatory information

### CANADA

Common name	CAS	CEPA	DSL	NDSL	NPRI
n-Propanol	71-23-8	X	X		X
Titanium dioxide	13463-67-7		X		
Butyl acetate (normal)	123-86-4	X	X		X
Nitrocellulose	9004-70-0		X		
Urea, polymer with formaldehyde, isobutylated	68002-18-6		X		
Xylene	1330-20-7	X	X		X
Dimethyl carbonate	616-38-6		X		

Isobutyl isobutyrate	97-85-8		X		
Isopropyl alcohol	67-63-0	X	X		X
Isobutyl alcohol	78-83-1	X	X		X
Ethylbenzene	100-41-4	X	X		X
Naphtha (petroleum), hydrotreated heavy (C6-C13)	64742-48-9		X		
Naphtha (petroleum), hydrodesulfurized heavy	64742-82-1		X		

- CEPA: List of Toxic Substances Managed Under Canadian Environmental Protection Act

- DSL: Domestic Substances List Inventory

- NDSL: Non-Domestic Substances List Inventory

- NPRI: National Pollutant Release Inventory Substances

## UNITED STATE OF AMERICA

Common name	CAS	TSCA	CER CLA	EPCRA 313	EPCRA 302/304	CAA 112(b) HON	CAA 112(b) HAP	CAA 112(r)	CWA 311	CWA Prio.
n-Propanol	71-23-8	X							X	
Titanium dioxide	13463-67-7	X								
Butyl acetate (normal)	123-86-4	X	X						X	
Nitrocellulose	9004-70-0	X								
Urea, polymer with formaldehyde, isobutylated	68002-18-6	X								
Xylene	1330-20-7	X	X	X		X	X		X	
Dimethyl carbonate	616-38-6	X								
Isobutyl isobutyrate	97-85-8	X								
Isopropyl alcohol	67-63-0	X		X					X	
Isobutyl alcohol	78-83-1	X	X							
Ethylbenzene	100-41-4	X	X	X		X	X		X	X
Naphtha (petroleum), hydrotreated heavy (C6-C13)	64742-48-9	X								
Naphtha (petroleum), hydrodesulfurized heavy	64742-82-1	X								

- TSCA: Toxic Substance Control Act

- CERCLA: Comprehensive Environmental Response, Compensation, and Liability Act list of hazardous substances

- EPCRA 313: Emergency Planning and Community Right-to-Know Act, Section 313 Toxic Chemicals

- EPCRA 302/304: Emergency Planning and Community Right-to-Know Act, Section 302/304 Extremely Hazardous Substances

- CAA 112(b) HON: Clean Air Act - Hazardous Organic National Emission Standard for Hazardous Air Pollutant

- CAA 112(b) HAP: Clean Air Act - Hazardous Air Pollutants lists pollutants

- CAA 112(r): Clean Air Act - Regulated Chemicals for Accidental Release Prevention

- CWA 311: Clean Water Act - List of Hazardous Substances

- CWA Priority: Clean Water Act - Priority Pollutant list

## California Proposition 65

Common name	CAS	Cancer	Reproductive and Developmental Toxicity
Titanium dioxide	13463-67-7	X	
Ethylbenzene	100-41-4	X	

## Other regulations

**WHMIS 1988**

B2 D2A D2B

Class B2 : Flammable Liquid

Class D2A : Very toxic material causing other toxic effects

Class D2B : Toxic material causing other toxic effects

**HMIS****NFPA****16. Other information**

<b>Date (YYYY-MM-DD)</b>	GEMINI INDUSTRIES, INC. 2017-03-17
<b>Version</b>	01
<b>Other information</b>	<p>REFERENCES:</p> <ul style="list-style-type: none"> <li>- Haz-Map, Information on Hazardous Chemicals and Occupational Diseases, <a href="http://hazmap.nlm.nih.gov/index.php">http://hazmap.nlm.nih.gov/index.php</a></li> <li>- TOXNET Databases, Toxicology Data Network, NIH U.S. National Library of Medicine, <a href="http://toxnet.nlm.nih.gov/">http://toxnet.nlm.nih.gov/</a></li> <li>- Service du répertoire toxicologique de la Commission des normes, de l'équité, de la santé et de la sécurité du travail (CNESST), <a href="http://www.reptox.csst.qc.ca">http://www.reptox.csst.qc.ca</a></li> <li>- NIOSH Pocket Guide to Chemical Hazards, Centers for Disease Control and Prevention, NIOSH Publications, 2007, <a href="http://www.cdc.gov/niosh/npg/npg.html">http://www.cdc.gov/niosh/npg/npg.html</a></li> <li>- IPCS INCHEM, Chemical Safety Information from Intergovernmental Organizations, Canadian Centre for Occupational Health and Safety (CCOHS), Copyright International Programme on Chemical Safety (IPCS), <a href="http://www.inchem.org">http://www.inchem.org</a></li> <li>- OECD Existing Chemicals Database, Chemicals Screening Information DataSet (SIDS) for High Volume Chemicals, UNEP publications, <a href="http://webnet.oecd.org/HPV/UI/Search.aspx">http://webnet.oecd.org/HPV/UI/Search.aspx</a></li> <li>- The National Center for Biotechnology Information, National Institutes of Health (NIH), U.S. National Library of Medicine, <a href="http://www.ncbi.nlm.nih.gov">www.ncbi.nlm.nih.gov</a></li> </ul> <p>ACGIH: American Conference of Governmental Industrial Hygienists          AIHA: American Industrial Hygiene Association          HMIS: Hazardous Materials Identification System          NFPA: National Fire Protection Association          OSHA: Occupational Safety and Health Administration (USA)          NIOSH: National Institute for Occupational Safety and Health          NTP: National Toxicology Program          RSST: Règlement sur la santé et la sécurité du travail (Québec)          GHS: Globally Harmonized System          IARC: International Agency for Research on Cancer          IDLH: Immediately Dangerous to Life or Health          STEL: Short Term Exposure Limit (15 min)          TWA: Time Weighted Averages          WHMIS: Workplace Hazardous Materials Information System</p> <p>To the best of our knowledge, the information contained herein is accurate. However, neither Préventis System nor any of its subsidiaries assumes any liability whatsoever for the accuracy or completeness of the information contained herein. Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.</p>