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Safety Data Sheet
WHITE SATIN PRE-CAT

1. Identification

Product identifier	WHITE SATIN PRE-CAT		
Product code	410-0077		
Other means of identification	None.		
Recommended use of the chemical and restrictions on use	A protective and/or decorative finish or accompanying paint product. Not recommended for any other use not detailed on product data sheet or label.		
Manufacturer	GEMINI INDUSTRIES, INC. 2300 Holloway Drive El Reno, OK 73036 USA Tel. 1-800-262-5710 Fax 1-405-262-9310 www.gemini-coatings.com		
Emergency phone number	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

Summary	Extremely flammable liquid and vapors. 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.

WHMIS 2015/OSHA HCS 2012/GHS

Flammable liquids (Category 1)
Skin corrosion/irritation (Category 2)
Serious eye damage/eye irritation (Category 2A)
Germ cell mutagenicity (Category 1B)
Carcinogenicity (Category 1A)
Reproductive toxicity (Category 1A)
Aspiration hazard (Category 1)

DANGER
H224: Extremely flammable liquid and vapour
H350: May cause cancer
H340: May cause genetic defects
H360: May damage fertility or the unborn child
H304: May be fatal if swallowed and enters airways
H319: Causes serious eye irritation
H315: Causes skin irritation

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, ventilating, lighting and all material-handling equipment.
P242: Use only non-sparking tools.
P243: Take precautionary measures against static discharge.
P264: Wash skin thoroughly after handling.
P280: Wear protective gloves, protective clothing, eye protection and/or face protection.
P308+313: IF exposed or concerned: Get medical attention.
P301+310+331: IF SWALLOWED: Immediately call a POISON CENTER or a physician. Do NOT induce vomiting.
P303+361+353: IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water [or shower].
P332+313: If skin irritation occurs: Get medical advice or attention.
P305+351+338: IF IN EYES: Rinse continuously with water for several minutes. Remove contact lenses if present and easy to do. Continue rinsing.
P337+313: If eye irritation persists: Get medical advice or attention.
P321: Specific treatment (see section 4 of SDS).
P362+364: Take off contaminated clothing and wash before reuse.
P370+378: In case of fire: Use the National Fire Protection Association Class B extinguisher to extinguish.
P403+235: Store in a well ventilated place. 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
Butyl acetate (normal)	123-86-4	24 - 26 %
Toluene	108-88-3	22 - 24 %
Titanium dioxide	13463-67-7	13 - 15 %
Nitrocellulose	9004-70-0	7.5 - 8.5 %
Ethyl alcohol	64-17-5	4.5 - 5.5 %
Xylene	1330-20-7	3.5 - 4.5 %
Isopropyl alcohol	67-63-0	2.5 - 3.5 %
Urea, polymer with formaldehyde, butylated	68002-19-7	2.5 - 3.5 %
Bis(2-Ethylhexyl) adipate	103-23-1	1.5 - 2.5 %
Ethylbenzene	100-41-4	0.5 - 1.5 %
Naphtha (petroleum), hydrotreated heavy (C6-C13)	64742-48-9	0.1 - 0.5 %

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.
Skin contact	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.
Eye contact	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.

Ingestion	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.
Other	No information available.
Symptoms	May cause redness and irritation to eyes. 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. Aspiration hazard for the lungs (ingestion/vomiting). Can enter lungs and cause damage. Signs of lung involvement include increased respiratory rate, increased heart rate, and a bluish discolouration of the skin. Coughing, choking and gagging are often noted at the time of aspiration.
Notes to the physician	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

Suitable extinguishing media	Class B extinguishers. Dry chemicals, alcohol resistant foam, carbon dioxide (CO2). Do not use a heavy water jet.
Specific hazards arising from the chemical	Extremely flammable liquid and vapors. 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. Contact with strong oxidizers may cause fire. In a fire or if heated, a pressure increase will occur and the container may burst.
Special protective equipment	Firefighters must wear self contained breathing apparatus with full face mask. Firefighting suit may not be efficient against chemicals.
Special protective actions for fire-fighters	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. If water is used, fog nozzles are preferable.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures	Do not touch spilled material. Make sure to wear personal protective equipment mentioned in this Safety Data Sheet.
Environmental precautions	Prevent entry into sewers, closed areas and release to the environment. For a large spill, consult the Department of Environment or the relevant authorities.
Methods and materials for containment and cleaning up	Remove sources of ignition. Ventilate the area well. Stop leak, if it's possible to do so without risk. 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.

7. Handling and storage

Precautions for safe handling	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 transfering large quantities (5 gallons US or 20 L and more). Use only in well ventilated area. Avoid prolonged or repeated breathing of vapour or mists. 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. Containers of this material may be hazardous even when empty. Since empty containers

	retain product residues (vapour, liquid), all hazard precautions given in this sheet must be observed. 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.
Conditions for safe storage, including any incompatibilities	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.
Storage temperature	10 to 25°C (50 to 77°F)

8. Exposure controls/personal protection

Immediately Dangerous to Life or Health	N-Butyl acetate: 1700 ppm. Toluene: 500 ppm. Titanium dioxide: 5000 mg/m3. Ethyl alcohol: 3300 ppm. Xylenes: 900 ppm. Isopropyl alcohol: 2000 ppm. Ethylbenzene: 800 ppm.

Butyl acetate (normal)	STEL	200 ppm		ACGIH , ON
		200 ppm	950 mg/m^3	RSST
	TWA (8h)	20 ppm		BC
		150 ppm		ACGIH , ON
		150 ppm	713 mg/m^3	RSST
Toluene	TWA (8h)	20 ppm		ACGIH , BC, ON
		50 ppm	188 mg/m^3	RSST (Pc)
Titanium dioxide	TWA (8h) Total Dust		10 mg/m^3	ACGIH , BC, ON, RSST
Ethyl alcohol	STEL	1000 ppm		ACGIH , BC, ON
	TWA (8h)	1000 ppm	1880 mg/m^3	RSST
Xylene	STEL	150 ppm		ACGIH , BC, ON
		150 ppm	651 mg/m^3	RSST
	TWA (8h)	100 ppm		ACGIH , BC, ON
		100 ppm	434 mg/m^3	RSST
Isopropyl alcohol	STEL	400 ppm		ACGIH , BC, ON
		500 ppm	1230 mg/m^3	RSST
	TWA (8h)	200 ppm		ACGIH , BC, ON
		400 ppm	983 mg/m^3	RSST
Ethylbenzene	STEL	125 ppm	543 mg/m^3	RSST
	TWA (8h)	20 ppm		ACGIH , BC, ON
		100 ppm	434 mg/m^3	RSST
Naphtha (petroleum), hydrotreated heavy (C6-C13)	TWA (8h) Mist		5 mg/m^3	ACGIH , RSST
		175 ppm	1200 mg/m^3	Other
		300 ppm		OSHA

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	
Eye	Wear chemical splash goggles.
Hands	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. Wash gloves with water before removing them. After using gloves, hands should be washed and dried thoroughly.
Skin	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.
Respiratory	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.
Feet	Wear rubber boots to clean up a spill.

9. Physical and chemical properties

Physical state	Liquid	**Flammability**	Flammable
Colour	Coloured	**Flammability limits**	N/Av.
Odour	Solvent	**Flash point**	4°C (39.2°F)
Odour threshold	N/Av.	**Auto-ignition temperature**	170°C (338°F)
pH	N/Ap.	**Sensibility to electrostatic charges**	Yes
Melting point	N/Av.	**Sensibility to sparks and/or friction**	No
Freezing point	N/Av.	**Vapour density**	>1 (Air = 1)
Boiling point	>34°C (93.2°F)	**Relative density**	1.07 kg/L (Water = 1)
Solubility	Partially soluble in water.	**Partition coefficient n-octanol/water**	N/Av.
Evaporation rate	> Butyl Acetate	**Decomposition temperature**	N/Av.
Vapour pressure	N/Av.	**Viscosity**	N/Av.
Percent Volatile	62.60%	**Molecular mass**	N/Ap.
N/Av.: Not Available N/Ap.: Not Applicable Und.: Undetermined N/E: Not Established			

10. Stability and reactivity

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

Conditions to avoid	Avoid heat, flame and sparks. Avoid contact with incompatible materials.
Incompatible materials	Strong bases, strong mineral acids, strong oxidizing agents (e.g. chlorine, fluorine, nitric acid, perchloric acid, peroxides, nitrates, chlorates, chromates, permanganates and perchlorates).
Hazardous decomposition products	Under normal conditions of storage and use, hazardous decomposition products should not be produced.

11. Toxicological information

Numerical measures of toxicity	Butyl acetate (normal)	Ingestion	10768 mg/kg	Rat	LD50
		Inhalation	>32.5 mg/l/4h	Rat	LC50
		Skin	>17600 mg/kg	Rabbit	LD50
	Toluene	Ingestion	5600 mg/kg	Rat	LD50
		Inhalation	30.2 mg/l/4h	Rat	LC50
		Skin	12600 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
	Ethyl alcohol	Ingestion	7060 mg/kg	Rat	LD50
		Inhalation	39 mg/l/4h	Mouse	LC50
		Skin	20000 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
	Isopropyl alcohol	Ingestion	5045 mg/kg	Rat	LD50
			3600 mg/kg	Mouse	LD50
		Inhalation	66.1 mg/l/4h	Rat	LC50
		Skin	6280 mg/kg	Rat	LD50
	Bis(2-Ethylhexyl) adipate	Ingestion	9100 mg/kg	Rat	LD50
		Inhalation	>5.7 mg/l/4h	Rat	LC50
		Skin	17297 mg/kg	Rabbit	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
Likely routes of exposure	Skin, eyes, inhalation, ingestion.				
Delayed, immediate and chronic effects	**Eye contact**	May cause irritation, redness, tearing and blurred vision. Eye Irritation/Corrosion, Rabbit (OECD TG 405): tests performed with each ingredient of this mixture gave not irritating to irritating results.			
	Skin contact	May cause redness, dryness, rash and skin irritation. Prolonged and repeated contact may cause dry skin, irritation or dermatitis. Skin Irritation/Corrosion, Rabbit (OECD 404) : tests performed with each ingredient of this mixture gave not irritating to irritating results. Widespread contact with skin for several hours can cause harmful amounts of material to be absorbed.			
	Inhalation	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. The severity of symptoms may vary depending on exposure conditions. Repeated and prolonged occupational overexposure to solvents may cause brain and nervous system damage.			
	Ingestion				

		Ingestion of large amounts may cause depression of the central nervous system characterized by headache, dizziness, convulsions and loss of consciousness. Harmful or fatal if inhaled into the lungs (ingestion/vomiting). Can enter lungs and cause damage. Signs of lung involvement include increased respiratory rate, increased heart rate, and a bluish discolouration of the skin. Coughing, choking and gagging are often noted at the time of aspiration.
	Respiratory or skin sensitization	Ingredients present at levels greater than or equal to 0.1% of this product are not skin or respiratory sensitizers.
	IARC/NTP Classification	**Common name IARC NTP** 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.
	Carcinogenicity	Contains material which can cause cancer. 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. There is sufficient evidence for the carcinogenicity of alcoholic (Ethanol) beverages in humans (IARC). The occurrence of malignant tumors of the oral cavity, pharynx, larynx, oesophagus, liver, breast and colorectal is causally related to the excessive consumption of alcoholic beverages. However, the possibility of such effects occurring is for chronic consumers of ethyl alcohol. The risk of cancer depends on duration and level of exposure.
	Mutagenicity	Ethyl Alcohol has showed positive results in dominant lethal tests by oral and intraperitoneal administration to mice and oral administration to rats (in vivo heritable germ cell mutagenicity tests) (SIDS (2009), IARC (1988)). There are also reports of negative Ames tests from in vitro mutagenicity tests SIDS (2009).
	Reproductive toxicity	Toluene cross the placental barrier in humans and it is found in breast milk in animals. An epidemiological study (1992) has been done with women exposed only to toluene in a factory. The first group was exposed to ambient concentrations from 50 to 150 ppm and the second at concentrations from 0 to 25 ppm. Comparison with a control group demonstrated a higher spontaneous abortions rates significantly in women exposed to higher concentrations than those of little or no exposure group. Toluene (CAS no 108-88-3) has an embryotoxic and/or fetotoxic hazard in humans (US EPA, 2005). A significant and prolonged consumption of ethyl alcohol (alcoholic beverage) during pregnancy can cause an increased risk of developmental abnormalities fetus humans. Xylene (CAS no 1330-20-7) overexposure may affect fetal development in laboratory animals by inhalation during pregnancy.
	Specific target organ toxicity - single exposure	Central nervous system, respiratory system.
	Specific target organ toxicity - repeated exposure	Central nervous system, respiratory system, hearing organs, liver, kidneys.
Interactive effects	No information available for this product.	
Other information	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

Ecological toxicity	Fish - Pimephales promelas [flow-through]	LC50	18 mg/L; 96h (Butyl acetate)
	Algea, Desmodesmus subspicatus	EC50	675 mg/L; 72h (Butyl acetate)
	Fish - Oncorhynchus mykiss - Rainbow trout	LC50	5.8 mg/L; 96 h (CAS no 108-88-3)
	Aquatic Invertebrate - Daphnia magna	EC50	5.46-9.83 mg/L; 48 h (CAS no 108-88-3)
	Algea, Pseudokirchneriella subcapitata	EC50	579 mg/L; 96 h (Nitrocellulose)
	Fish - Pimephales promelas [flow-through]	LC50	13400-15100 mg/L; 96 h (CAS no 64-17-5)
	Aquatic Invertebrate - Daphnia magna	EC50	9268-14221 mg/L; 48 h (Ethyl alcohol)
	Fish - Oncorhynchus mykiss - Rainbow trout	LC50	13.5-17.3 mg/L; 96 h (CAS no 1330-20-7)
	Aquatic Invertebrate - Daphnia magna	EC50	3.82 mg/L; 48 h (CAS no 1330-20-7)
	Fish - Fathead minnow, Pimephales promelas - fresh water	LC50	9640 mg/L; 96 h (CAS no 67-63-0)
	Aquatic Invertebrate - Crustaceans, Daphnia Magna	EC50	3644 mg/L; 48 h (CAS no 67-63-0)
	Plant - Lettuce seed germination, Lactuca Sativa	EC50	2100 mg/L; 72 h (CAS no 67-63-0)
	Fish - Lepomis macrochirus [static]	LC50	0.48-0.85 mg/L; 96 h (CAS no 103-23-1)
	Aquatic Invertebrate - Daphnia magna	EC50	>1.6 mg/L; 48 h (CAS no 103-23-1)
	Algea - Desmodesmus subspicatus	EC50	>500 mg/L; 72 h (CAS no 103-23-1)
	Fish - Oncorhynchus mykiss - Rainbow trout	LC50	4.2 mg/L; 96 h (Ethylbenzene)
	Aquatic invertebrate - Crangon franciscorum	EC50	0.49 mg/L; 48 h (Ethylbenzene)
Persistence	The product contains components that may persist in the environment.		
Degradability	N-Butyl acetate is readily biodegradable (96% in 28 days) OECD Guideline 301D. Toluene 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 1 to 2 days. Toluene is Biodegradable (100% in 10 days, OECD 301C). Its Biochemical Oxygen Demand (BOD) is 2150 mg O2/L (IUCLID) and its Chemical Oxygen Demand (COD) is 2520 mg O2/g (IUCLID). 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). Ethanol is readily biodegradable under aerobic and anaerobic conditions (OECD Test Guideline 301D). Xylene in air is rapidly decomposed by photochemical processes, mainly through oxidation by hydroxyle 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). Isopropyl alcohol (CAS no 67-63-0) 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 T½ of 18 to 25 hours. Bis(2-Ethylhexyl) adipate (CAS no 103-23-1) is readily biodegradable >90% in 28 days (OECD Guideline 301F). Ethylbenzene is biodegraded fairly rapidly by sewage or activated sludge (TOXNET).		
Bioaccumulative potential	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). Toluene has Bioconcentration Factor (BCF) in two fish species of 13 and 90, and its partition factor Log Kow of 2,65. These values suggest a low to moderate potential of bioaccumulation. Ethanol has a Bioconcentration Factor (BCF) value of <10, and its Log Kow value is <0, indicating its potential to bioaccumulate is low. Xylene has Bioconcentration Factor (BCF) of 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). The Log Kow value <0.4 and bioconcentration factor (BCF) value <1 for isopropyl alcohol (CAS no 67-63-0) show no potential to bioaccumulate (IUCLID). Bis(2-Ethylhexyl) adipate (CAS no 103-23-1) has a Bioconcentration Factor (BCF) of 27, indicating no bioaccumulation. 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).		
Mobility in soil	N-Butyl acetate will be distributed to air (93.4%), water (5.78%), soil (0.792%), and sediment (<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. Toluene will rapidly evaporate into the atmosphere because of its low soil absorption and its low solubility in water. Its Koc values range from 37 to 178 in a sandy soil suggest that toluene is expected to have high to moderate mobility in soil (TOXNET Data). Ethanol is very soluble in water. The resultant Koc of 1 indicates that ethanol released in soil would move quickly through the soil. It will be distributed mainly in the atmosphere (57%) and water (34%). 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).		

	Isopropyl alcohol (CAS no 67-63-0) is soluble in water and will quickly evaporate into the air. There is no partition in the ground. Bis(2-Ethylhexyl) adipate (CAS no 103-23-1) has an estimated Koc value of 49000 which suggests that it is expected to be immobile in soil. Ethylbenzene is expected to have a moderate mobility in soil with an estimated Koc value of 520 (TOXNET).
Other adverse effects	This chemical does not deplete the ozone layer.

13. Disposal considerations

Container	Important! Prevent waste generation. Use in full. DO NOT dispose residue in sewers, streams or drinking water supply. Paint residues, including lacquers, dyes, shellacs, varnishes, paint solvents and thinners, can be reprocessed where there is a recovery 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.

14. Transport information

UN Number	UN 1263
UN Proper Shipping Name	PAINT
Environmental hazards	This material does not contain marine pollutant.
Special precautions for user	Permit required for transportation with proper DANGER placards displayed on vehicle.
TDG - Transportation of Dangerous Goods (Canada)	
Transport hazard class(es)	 Class 3
Packing group	II
IMO/IMDG - International Maritime Transport	
Classification	UN 1263. PAINT. Class 3, PG II. Emergency schedules (EmS-No) F-E, S-E
IATA - International Air Transport Association	
Classification	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
Butyl acetate (normal)	123-86-4	X	X		X
Toluene	108-88-3	X	X		X
Titanium dioxide	13463-67-7		X		
Nitrocellulose	9004-70-0		X		
Ethyl alcohol	64-17-5	X	X		X
Xylene	1330-20-7	X	X		X

Isopropyl alcohol	67-63-0	X	X		X
Urea, polymer with formaldehyde, butylated	68002-19-7		X		
Bis(2-Ethylhexyl) adipate	103-23-1		X		X
Ethylbenzene	100-41-4	X	X		X
Naphtha (petroleum), hydrotreated heavy (C6-C13)	64742-48-9		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.
Butyl acetate (normal)	123-86-4	X	X						X	
Toluene	108-88-3	X	X	X		X	X		X	X
Titanium dioxide	13463-67-7	X								
Nitrocellulose	9004-70-0	X								
Ethyl alcohol	64-17-5	X								
Xylene	1330-20-7	X	X	X		X	X		X	
Isopropyl alcohol	67-63-0	X		X						
Urea, polymer with formaldehyde, butylated	68002-19-7	X								
Bis(2-Ethylhexyl) adipate	103-23-1	X								
Ethylbenzene	100-41-4	X	X	X		X	X		X	X
Naphtha (petroleum), hydrotreated heavy (C6-C13)	64742-48-9	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
Toluene	108-88-3		X
Titanium dioxide	13463-67-7	X	
Ethyl alcohol	64-17-5	X	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

Date (YYYY-MM-DD)	GEMINI INDUSTRIES, INC. 2018-01-29
Version	01
Other information	- The GHS hazards classification in this SDS is from the original SDS provided by the manufacturer. REFERENCES: - Haz-Map, Information on Hazardous Chemicals and Occupational Diseases, http://hazmap.nlm.nih.gov/index.php - TOXNET Databases, Toxicology Data Network, NIH U.S. National Library of Medicine, http://toxnet.nlm.nih.gov/ - Service du répertoire toxicologique de la Commission des normes, de l'équité, de la santé et de la sécurité du travail (CNESST), http://www.reptox.csst.qc.ca - NIOSH Pocket Guide to Chemical Hazards, Centers for Disease Control and Prevention, NIOSH Publications, 2007, http://www.cdc.gov/niosh/npg/npg.html - IPCS INCHEM, Chemical Safety Information from Intergovernmental Organizations, Canadian Centre for Occupational Health and Safety (CCOHS), Copyright International Programme on Chemical Safety (IPCS), http://www.inchem.org - OECD Existing Chemicals Database, Chemicals Screening Information DataSet (SIDS) for High Volume Chemicals, UNEP publications, http://webnet.oecd.org/HPV/UI/Search.aspx 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