



Safety Data Sheet

WHITE PRECAT GLOSS LACQUER



1. Identification

Product identifier	WHITE PRECAT GLOSS LACQUER		
Product code	410-0008		
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.geminicoatings.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	FLAMMABLE LIQUID! 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)
- Acute toxicity, oral (Category 4)
- Skin corrosion/irritation (Category 2)
- Serious eye damage/eye irritation (Category 1)
- Respiratory sensitizer (Category 1)
- Skin sensitizer (Category 1)
- Germ cell mutagenicity (Category 1B)
- Carcinogenicity (Category 1A)
- Reproductive toxicity (Category 1A)
- Specific target organ toxicity, single exposure (Category 3)
- Specific target organ toxicity, repeated exposure (Category 2)



Other hazards which do not result in classification :
 Acute hazard to the aquatic environment (Category 2).
 Long-term hazard to the aquatic environment (Category 2)

DANGER

H225: Highly Flammable liquid and vapour

H318: Causes serious eye damage
H334: May cause allergy or asthma symptoms or breathing difficulties if inhaled
H350: May cause cancer
H340: May cause genetic defects
H360: May damage fertility or the unborn child
H302: Harmful if swallowed
H315: Causes skin irritation
H317: May cause an allergic skin reaction
H335: May cause respiratory irritation
H336: May cause drowsiness or dizziness
H373: May cause damage to organs through prolonged or repeated exposure by inhalation
H411: Toxic to aquatic life with long lasting effects
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.
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.
P260: Do not breathe mist, vapours and spray.
P264: Wash skin thoroughly after handling.
P270: Do not eat, drink or smoke when using this product.
P271: Use only outdoors or in a well-ventilated area.
P272: Contaminated work clothing should not be allowed out of the workplace.
P273: Avoid release to the environment.
P280: Wear protective gloves, protective clothing and eye protection.
P284: In case of inadequate ventilation, wear respiratory protection.
P301+P330+P312: IF SWALLOWED: Rinse mouth. Call a POISON CENTER or a doctor if you feel unwell.
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.
P333+313: If skin irritation or a rash occurs: Get medical advice/attention.
P304+340: IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
P342+311: If experiencing respiratory symptoms: Call a POISON CENTER or doctor/physician.
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 doctor/physician.
P308+313: IF exposed or concerned: Get medical advice/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 for extinction.
P391: Collect spillage.
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 an approved waste disposal plant.

3. Composition/information on ingredients

Common name	CAS	Weight % content
Titanium dioxide	13463-67-7	18 - 20 %
Butyl acetate (normal)	123-86-4	16 - 18 %
Urea, polymer with formaldehyde, isobutylated	68002-18-6	9 - 11 %
Ethyl Alcohol	64-17-5	5 - 7 %
Toluene	108-88-3	5 - 7 %
n-Propanol	71-23-8	4 - 6 %
Isobutyl acetate	110-19-0	4 - 6 %

Isobutyl alcohol	78-83-1	3 - 5 %
Xylene	1330-20-7	2 - 4 %
Nitrocellulose	9004-70-0	2 - 4 %
Isopropyl alcohol	67-63-0	1 - 2 %
Acetone	67-64-1	1 - 2 %
Ethylbenzene	100-41-4	0.1 - 1 %
Formaldehyde	50-00-0	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. 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 rinse 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 severe eye irritation or eye damage. May cause skin irritation. May cause an allergic reaction of the skin. May cause respiratory tract irritation. Inhalation of vapours may cause central nervous system depression such as drowsiness, headache, dizziness, vertigo, nausea and fatigue. May cause an allergic respiratory reaction with symptoms similar to asthma such as wheezing and chest tightness.
Notes to the physician	Treat symptomatically. If 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 (CO ₂). Do not use direct water jet.
Specific hazards arising from the chemical	Very flammable liquid and vapours. May be ignited by heat, sparks, flame or static electricity. Vapours are heavier than air and may travel to an ignition source distant from the material handling point. 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. Emits toxic fumes under fire conditions.
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. Prevent run-off from fire control or dilution from entering streams, sewers or drinking water supply.

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 in sewer and other enclosed area. 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. 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

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 transferring 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. Rags, steel wool and paper towels soaked with this product may overheat and spontaneously ignite if piled in a heap. After use immediately store them in water-filled metal can with tight fitting lid.
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).
Storage temperature	10 to 25°C (50 to 77°F)

8. Exposure controls/personal protection

Immediately Dangerous to Life or Health	Titanium dioxide: 5000 mg/m ³ . n-Butyl acetate: 1700 ppm. Ethyl alcohol: 3300 ppm. Toluene: 500 ppm n-Propanol: 800 ppm. Isobutyl acetate: 1300 ppm. Isobutyl alcohol: 1600 ppm. Xylenes: 900 ppm. Isopropyl alcohol: 2000 ppm. Acetone: 2500 ppm. Ethylbenzene: 800 ppm. Formaldehyde: 20 ppm.
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Titanium dioxide	TWA (8h)	Total Dust	10 mg/m ³	ACGIH , BC, ON, RSST
Butyl acetate (normal)	STEL	200 ppm		ACGIH , ON
		200 ppm	950 mg/m ³	RSST
Ethyl Alcohol	TWA (8h)	20 ppm		BC
		150 ppm		ACGIH , ON
		150 ppm	713 mg/m ³	RSST
		1000 ppm	1880 mg/m ³	ACGIH , BC, ON
Toluene	TWA (8h)	20 ppm		RSST
		50 ppm	188 mg/m ³	ACGIH , BC, ON
n-Propanol	STEL	250 ppm	614 mg/m ³	RSST (Pc)
		100 ppm		ACGIH , BC, ON
Isobutyl acetate	TWA (8h)	200 ppm	492 mg/m ³	RSST (Pc)
		150 ppm		ACGIH , BC, ON
Isobutyl alcohol	TWA (8h)	150 ppm	713 mg/m ³	RSST
		50 ppm		ACGIH , BC, ON
Xylene	STEL	50 ppm	152 mg/m ³	RSST
		150 ppm	651 mg/m ³	ACGIH , BC, ON
Acetone	TWA (8h)	100 ppm		ACGIH , BC, ON
		100 ppm	434 mg/m ³	RSST
		500 ppm		ACGIH , BC
		750 ppm	1782 mg/m ³	ON
Isopropyl alcohol	STEL	1000 ppm	2380 mg/m ³	RSST
		250 ppm		ACGIH , BC
		500 ppm	1188 mg/m ³	ON
		500 ppm	1190 mg/m ³	RSST
Ethylbenzene	TWA (8h)	400 ppm		ACGIH , BC, ON
		500 ppm	1230 mg/m ³	RSST
Formaldehyde	Ceiling	200 ppm		ACGIH , BC, ON
		400 ppm	983 mg/m ³	RSST
Formaldehyde	STEL	125 ppm	543 mg/m ³	RSST
		20 ppm		ACGIH , BC, ON
		100 ppm	434 mg/m ³	RSST
		0.3 ppm	0.37 mg/m ³	ACGIH
		1 ppm		BC
		1.5 ppm		ON
Formaldehyde	TWA (8h)	2 ppm	3 mg/m ³	RSST (C2, EM, RP)
		1 ppm		ON
		0.3 ppm		BC

Appropriate engineering controls Provide sufficient mechanical ventilation (general and/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. Wear an apron or long-sleeve protective coverall suit.
Respiratory	Respiratory protection is not required for normal use. Respiratory protection equipment (RPE) must be selected, fitted, maintained and inspected in accordance with regulations and CSA Standard Z 94.4 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.
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9. Physical and chemical properties

Physical state	Liquid	Flammability	Flammable
Colour	White	Flammability limits	N/Av.
Odour	Solvent odor	Flash point	-20°C (-4°F)
Odour threshold	N/Av.	Auto-ignition temperature	N/Av.
pH	N/Av.	Sensibility to electrostatic charges	Yes
Melting point	N/Av.	Sensibility to sparks and/or friction	N/Av.
Freezing point	N/Av.	Vapour density	>1 (Air = 1)
Boiling point	78°C (172.4°F)	Relative density	1.1146 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	51.76%	Molecular mass	N/Av.

N/Av.: Not Available N/Av.: 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 electro-static discharge. Avoid contact with incompatible materials.
Incompatible materials	Strong bases, mineral acids, strong oxidizing agents (such as nitric acid, perchloric acid, peroxides, chlorates 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	Titanium dioxide	Ingestion >10000 mg/kg Rat LD50 Inhalation >6.82 mg/l/4h Rat LC50 Skin >10000 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	
	Urea, polymer with formaldehyde, isobutylated	Ingestion >5000 mg/kg Rat LD50 Skin >5000 mg/kg Rabbit LD50	
	Ethyl Alcohol	Ingestion 7060 mg/kg Rat LD50 Inhalation 39 mg/l/4h Mouse LC50 Skin 20000 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	
	Isobutyl acetate	Ingestion 13400 mg/kg Rat LD50 Inhalation >38 mg/l/4h Rat LC50 Skin >17400 mg/kg Rabbit LD50	
	n-Propanol	Ingestion 1870 mg/kg Rat LD50 Inhalation 48 mg/l/4h Mouse LC50 >9.84 mg/l/4h Rat LC50 Skin 4060 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	
	Nitrocellulose	Ingestion >5000 mg/kg Rat LD50	
	Xylene	Ingestion 3523 mg/kg Rat LD50 Inhalation 27.6 mg/l/4h Rat LC50 Skin 3200 mg/kg Rabbit LD50	
	Acetone	Ingestion 5800 mg/kg Rat LD50 Inhalation 71.4 mg/l/4h Rat LC50 Skin 15800 mg/kg Rabbit LD50	
	Isopropyl alcohol	Ingestion 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	
	Formaldehyde	Ingestion 42 mg/kg Mouse LD50 Inhalation 250 ppm/4h Rat LC50 414 ppm/4h Mouse LC50 Skin 270 mg/kg Rabbit LD50	
	Likely routes of exposure	Skin, eyes, inhalation, ingestion.	
	Delayed, immediate and chronic effects	Eye contact	May cause severe eye irritation or eye damage. 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.
		Skin contact	May cause redness and slight irritation of the skin. Prolonged and repeated contact may cause dry skin, irritation or dermatitis. Harmful if absorbed through skin. Widespread contact with skin for several hours can cause harmful amounts of material to be absorbed. Skin Irritation/Corrosion, Rabbit (OECD 404) : tests performed with each ingredient of this mixture gave not irritating to irritating results.
		Inhalation	Excessive inhalation is harmful. May cause respiratory tract irritation. Inhalation of vapours may cause central nervous system depression such as drowsiness,

	<p>headache, dizziness, vertigo, nausea and fatigue. The severity of symptoms may vary depending on exposure conditions.</p> <p>Ingestion Ingestion of large amounts may cause depression of the central nervous system characterized by headache, dizziness, convulsions and loss of consciousness. 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 discoloration of the skin. Coughing, choking and gagging are often noted at the time of aspiration.</p> <p>Respiratory or skin sensitization Aqueous formaldehyde solutions cause skin sensitization. However, free formaldehyde gas does not cause skin sensitization. Formaldehyde can cause asthma attacks due to allergic sensitization of the respiratory tract.</p> <p>IARC/NTP Classification Common name IARC NTP Titanium dioxide 2B - Ethylbenzene 2B - Formaldehyde 1 R <small>IARC : 1- Carcinogenic; 2A- Probably carcinogenic; 2B- Possibly carcinogenic. NTP : K- Known to be carcinogens; R- Reasonably anticipated to be carcinogens.</small></p> <p>Carcinogenicity Contains material which can cause cancer. Contains trace amounts (>0.1%) of free formaldehyde (CAS no. 50-00-0) which is classified as carcinogenic to humans (IARC, Group 1). 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.</p> <p>Mutagenicity Formaldehyde has positive data on somatic cell mutagenicity tests in vivo (SIDS).</p> <p>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. Xylene overexposure may affect fetal development in laboratory animals by inhalation during pregnancy.</p> <p>Specific target organ toxicity - single exposure Central nervous system, respiratory system.</p> <p>Specific target organ toxicity - repeated exposure Central nervous system, respiratory system.</p>
Interactive effects	No information available for this product.
Other information	The oral acute toxicity estimate (ATE) of the mixture was calculated to be greater than 300 mg/Kg but lower than 2000 mg/kg. This value is classified according to GHS: Acute toxicity, oral (Category 4). The skin acute toxicity estimate (ATE) of the mixture was calculated to be greater than 2000 mg/kg. This value is not classified according to WHMIS and OSHA HCS 2012. The acute toxicity estimate (ATE) by inhalation of the mixture was calculated to be greater than 20 mg/L/4h. This value is not classified according to GHS.

12. Ecological information

Ecological toxicity	<p>Fish - Oncorhynchus mykiss - Rainbow trout LC50 4.74-6.33 mg/L; 96 h (acetone)</p> <p>Aquatic Invertebrate - Daphnia magna EC50 12600-12700 mg/L; 48 h (acetone)</p> <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 hr (Isopropyl alcohol)</p> <p>Plant - Lettuce seed germination, Lactuca Sativa EC50 2100 mg/L; 72 hr (Isopropyl alcohol)</p> <p>Fish - Pimephales promelas [flow-through] LC50 18 mg/L; 96h (Butyl acetate)</p> <p>Aquatic Plant - Algea, Desmodesmus subspicatus EC50 675 mg/L; 72h (Butyl acetate)</p> <p>Algea, Pseudokirchneriella subcapitata EC50 579 mg/L; 96h (Nitrocellulose)</p>
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	<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 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 - Fresh water LC50 >500 mg/L; 96 h (Titanium dioxide)</p> <p>Aquatic Invertebrates - Daphnia pulex EC50 9.2 mg/L; 48 h (Titanium dioxide)</p> <p>Fish - Pimephales promelas [flow-through] LC50 13400-15100 mg/L; 96 h (ethyl alcohol)</p> <p>Aquatic Invertebrate - Daphnia magna EC50 9268-14221 mg/L; 48 h (ethyl alcohol)</p> <p>Fish - Oncorhynchus mykiss - Rainbow trout LC50 5.8 mg/L; 96 h (Toluene)</p> <p>Aquatic Invertebrate - Daphnia magna EC50 5.46-9.83 mg/L; 48 h (Toluene)</p>
Persistence	Inorganic compounds persist in the environment indefinitely or incorporate into biological systems.
Degradability	<p>The term biodegradability, as such, is not applicable to inorganic compounds like Titanium dioxide. Acetone undergoes slow photolysis in air (half-life time T_{1/2} = 80 h) and in water (T_{1/2} >43 h). 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). 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 T_{1/2} of 18 to 25 hours. n-Butyl acetate is readily biodegradable (96% in 28 days) OECD Guideline 301D. Ethanol is readily biodegradable under aerobic and anaerobic conditions (OECD Test 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). N-Propanol is readily biodegradable, 75% in 20 days (OECD 301F). Isobutyl acetate is expected to biodegrade in soil and water environments based on 5- and 20- day theoretical biochemical oxygen demands of 60% and 81%, respectively, in fresh water dilution tests (TOXNET). Isobutyl alcohol is readily biodegradable, 74% in 28 days (OCDE 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).</p>
Bioaccumulative potential	<p>Acetone has a Bioconcentration Factor (BCF) of 0.65 and a partition factor Log Kow of -0.24, indicating no bioaccumulation. The Log Kow value <0.4 and bioconcentration factor (BCF) value <1 for isopropyl alcohol 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). Ethanol has a Bioconcentration Factor (BCF) value of <10, and its Log Kow value is <0, indicating its potential to bioaccumulate is low. 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. The Log Kow values <0.4 and bioconcentration factor (BCF) values <1 for isopropyl alcohol and n-propanol show no potential to bioaccumulate (IUCLID). Isobutyl acetate is not expected to bioaccumulate based on a bioconcentration factor (BCF) of 7 and a partition coefficient Log Kow of 1.78 (TOXNET). Isobutyl alcohol has a low potential to bioaccumulate with a bioconcentration factor (BCF) of 3 (TOXNET). 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).</p>
Mobility in soil	<p>Acetone evaporates very rapidly from dry soil surfaces. It is very soluble in water and it is expected to have very high mobility in soil with no adsorption to sediment. Isopropyl alcohol 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 (<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. 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%). 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). Isopropyl alcohol and n-propanol are soluble in water and will quickly evaporate into the air. There is no partition in the ground. Isobutyl acetate is expected to have very high mobility in water based on an estimated Koc of 16 (TOXNET). Isobutyl alcohol should have a very high mobility in soil with an estimated</p>

	Koc value of 2.9 (TOXNET) and it distributes itself into the atmosphere (32.02%), water (67.92%), soil (0.03%), and sediments (0.03%). 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).
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 of residue in sewers, streams or drinking water supply. Paint residues, including lacquers, stains, shellac, varnish, solvents and paint thinners, can be reprocessed (recycle) anywhere 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.
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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 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
Titanium dioxide	13463-67-7		X		
Butyl acetate (normal)	123-86-4	X	X		X
Urea, polymer with formaldehyde, isobutylated	68002-18-6		X		
Ethyl Alcohol	64-17-5	X	X		X
Toluene	108-88-3	X	X		X
n-Propanol	71-23-8		X		X
Isobutyl acetate	110-19-0		X		

Isobutyl alcohol	78-83-1	X	X		X
Xylene	1330-20-7	X	X		X
Nitrocellulose	9004-70-0		X		
Isopropyl alcohol	67-63-0	X	X		X
Acetone	67-64-1		X		
Ethylbenzene	100-41-4	X	X		X
Formaldehyde	50-00-0	X	X		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	CERCLA	EPCRA 313	EPCRA 302/304	CAA 112(b) HON	CAA 112(b) HAP	CAA 112(r)	CWA 311	CWA Priority
Titanium dioxide	13463-67-7	X								
Butyl acetate (normal)	123-86-4	X	X						X	
Urea, polymer with formaldehyde, isobutylated	68002-18-6	X								
Ethyl Alcohol	64-17-5	X								
Toluene	108-88-3	X	X	X		X	X		X	X
n-Propanol	71-23-8	X							X	
Isobutyl acetate	110-19-0	X	X							
Isobutyl alcohol	78-83-1	X	X							
Xylene	1330-20-7	X	X	X		X	X		X	
Nitrocellulose	9004-70-0	X								
Isopropyl alcohol	67-63-0	X		X					X	
Acetone	67-64-1	X	X			X				
Ethylbenzene	100-41-4	X	X	X		X	X		X	X
Formaldehyde	50-00-0	X	X	X	X	X	X	X	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	
Toluene	108-88-3		X
Ethylbenzene	100-41-4	X	
Formaldehyde	50-00-0	X	

Other regulations

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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. 2016-02-15

Version

01

**Other
information**

- This SDS and the GHS hazards classification is a French translation of the original English version (SDS) from 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

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