



Safety Data Sheet

NEXUS PRECAT VINYL SEALER






1. Identification

Product identifier	NEXUS PRECAT VINYL SEALER		
Product code	PVS-0100		
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) Skin corrosion/irritation (Category 2) Serious eye damage/eye irritation (Category 2) Germ cell mutagenicity (Category 1) Carcinogenicity (Category 1) Reproductive toxicity (Category 1) Specific target organ toxicity, single exposure (Category 3)
	Other hazards which do not result in classification : Acute hazard to the aquatic environment (Category 3).
DANGER H225: Highly Flammable liquid and vapour H350: May cause cancer H340: May cause genetic defects H360: May damage fertility or the unborn child H319: Causes serious eye irritation H315: Causes skin irritation	

H335: May cause respiratory irritation
H336: May cause drowsiness or dizziness
H402: Harmful to aquatic life
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.
P261: Avoid breathing vapours.
P264: Wash skin thoroughly after handling.
P271: Use only in a well-ventilated area.
P273: Avoid release to the environment.
P280: Wear protective gloves, protective clothing and eye protection.
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.
P337+313: If eye irritation persists: Get medical advice or attention.
P308+313: IF exposed or concerned: Get medical advice/attention.
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.
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
Butyl acetate (normal)	123-86-4	18 - 20 %
Ethyl Alcohol	64-17-5	16 - 18 %
Acetone	67-64-1	16 - 18 %
Methyl Propyl Ketone	107-87-9	13 - 15 %
Nitrocellulose	9004-70-0	6.5 - 7.5 %
Urea, polymer with formaldehyde, isobutylated	68002-18-6	4.5 - 5.5 %
2-Butenedioic acid (Z)-, dibutyl ester, polymer with chloroethene and 1,2-propanediol mono-2-propenoate	114653-42-8	2.5 - 3.5 %
Isopropyl alcohol	67-63-0	2.5 - 3.5 %
Isobutyl alcohol	78-83-1	1.5 - 2.5 %
Bis(2-Ethylhexyl) adipate	103-23-1	1.5 - 2.5 %
Methyl isobutyl ketone	108-10-1	1.5 - 2.5 %
Methyl n-amyl ketone	110-43-0	1.5 - 2.5 %
n-Propyl acetate	109-60-4	0.5 - 1.5 %
Xylene	1330-20-7	0.5 - 1.5 %
N,N'-Ethylene distearamide	110-30-5	0.5 - 1.5 %

Ethylbenzene	100-41-4	0.1 - 1 %
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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 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 of the skin and to eyes. May cause respiratory tract irritation. Inhalation of vapours may cause central nervous system depression such as drowsiness, headache, dizziness, vertigo, nausea and fatigue.
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). 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	<p>N-Butyl acetate: 1700 ppm. Isobutyl alcohol: 1600 ppm. Xylenes: 900 ppm. Ethyl alcohol: 3300 ppm. Ethylbenzene: 800 ppm. Acetone: 2500 ppm. Methyl Propyl Ketone: 1500 ppm. Isopropyl alcohol: 2000 ppm. Isobutyl alcohol: 1600 ppm. Methyl isobutyl ketone: 500 ppm. Methyl n-amyl ketone: 800 ppm. n-Propyl acetate: 1700 ppm.</p>			
Butyl acetate (normal)	STEL	200 ppm	950 mg/m ³	ACGIH , ON
		200 ppm		RSST
	TWA (8h)	20 ppm	713 mg/m ³	BC
		150 ppm		ACGIH , ON
		150 ppm		RSST
		150 ppm		ACGIH , ON
Acetone	STEL	500 ppm	1782 mg/m ³	ACGIH , BC
		750 ppm		ON
		1000 ppm		RSST
	TWA (8h)	250 ppm	1188 mg/m ³	ACGIH , BC
		500 ppm		ON
		500 ppm		RSST
Ethyl Alcohol	STEL	1000 ppm	1190 mg/m ³	ACGIH , BC, ON
	TWA (8h)	1000 ppm		RSST
Methyl Propyl Ketone	Ceiling	150 ppm	1880 mg/m ³	ACGIH , ON
	STEL	250 ppm		BC

Isopropyl alcohol	TWA (8h)		150 ppm		BC
			150 ppm	530 mg/m ³	RSST
	STEL		400 ppm		ACGIH , BC, ON
Methyl isobutyl ketone			500 ppm	1230 mg/m ³	RSST
	TWA (8h)		200 ppm		ACGIH , BC, ON
	STEL		400 ppm	983 mg/m ³	RSST
Methyl n-amyl ketone			75 ppm		ACGIH , BC, ON
			75 ppm	307 mg/m ³	RSST
	TWA (8h)		20 ppm		ACGIH , BC, ON
Isobutyl alcohol			50 ppm	205 mg/m ³	RSST
	TWA (8h)		25 ppm	115 mg/m ³	ON
			50 ppm		ACGIH , BC
Xylene			50 ppm	233 mg/m ³	RSST
	TWA (8h)		50 ppm		ACGIH , BC, ON
	STEL		150 ppm		ACGIH , BC, ON
N,N'-Ethylene distearamide			150 ppm	651 mg/m ³	RSST
			100 ppm		ACGIH , BC, ON
	TWA (8h)		100 ppm	434 mg/m ³	RSST
n-Propyl acetate		Respirable Dust		3 mg/m ³	ACGIH
		Total Dust		10 mg/m ³	ACGIH
	STEL		250 ppm		ACGIH , BC, ON
Ethylbenzene			250 ppm	1040 mg/m ³	RSST
	TWA (8h)		200 ppm		ACGIH , BC, ON
	STEL		200 ppm	835 mg/m ³	RSST
			125 ppm	543 mg/m ³	RSST
	TWA (8h)		20 ppm		ACGIH , BC, ON
			100 ppm	434 mg/m ³	RSST

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. If necessary, 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.

9. Physical and chemical properties

Physical state	Liquid	Flammability	Flammable
Colour	Clear or coloured	Flammability limits	N/Av.

Odour	Solvent odor	Flash point	0°C (32°F)
Odour threshold	N/Av.	Auto-ignition temperature	N/Av.
pH	N/Ap.	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	56 to 214°C (132.8 to 417.2°F)	Relative density	0.89 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	77.88%	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, 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	Butyl acetate (normal)	Ingestion 10768 mg/kg Rat LD50
		Inhalation >32.5 mg/l/4h Rat LC50
		Skin >17600 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
	Ethyl Alcohol	Ingestion 7060 mg/kg Rat LD50
		Inhalation 39 mg/l/4h Mouse LC50
		Skin 20000 mg/kg Rabbit LD50
	Methyl Propyl Ketone	Ingestion 3730 mg/kg Rat LD50
		1600 mg/kg Mouse LD50
		Inhalation 11 mg/l/4h Rat LC50
	Nitrocellulose	Skin 6472 mg/kg Rabbit LD50
	Urea, polymer with formaldehyde, isobutylated	Ingestion >5000 mg/kg Rat LD50
	Ingestion >5000 mg/kg Rat LD50	

	Isopropyl alcohol	Skin >5000 mg/kg Rabbit LD50 Ingestion 5045 mg/kg Rat LD50 Inhalation 66.1 mg/l/4h Rat LC50 Skin 6280 mg/kg Rat LD50
	2-Butenedioic acid (Z)-, dibutyl ester, polymer with chloroethene and 1,2-propanediol mono-2-propenoate	Ingestion >2000 mg/kg Rat LD50 Skin >2000 mg/kg Rabbit 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
	Isobutyl alcohol	Ingestion 2460 mg/kg Rat LD50 Inhalation 19.2 mg/l/4h Rat LC50
	Methyl isobutyl ketone	Skin 3400 mg/kg Rabbit LD50 Ingestion 2080 mg/kg Rat LD50 Inhalation <16.4 mg/l/4h Rat LC50 >8.2 mg/l/4h Rat LC50
	Methyl n-amyl ketone	Skin >3000 mg/kg Rat LD50 Ingestion 1670 mg/kg Rat LD50 Inhalation <18.7 mg/l/4h Rat LC50 >9.34 mg/l/4h Rat LC50
	n-Propyl acetate	Skin 10220 mg/kg Rabbit LD50 Ingestion 8700 mg/kg Rat LD50 Inhalation >16.7 mg/l/4h Rat LC50
	N,N'-Ethylene distearamide	Skin >17800 mg/kg Rabbit LD50 Ingestion >5000 mg/kg Rat LD50 Inhalation >14.6 mg/l/4h Rat LC50
	Xylene	Skin >20000 mg/kg Rat LD50 Ingestion 3523 mg/kg Rat LD50 Inhalation 27.6 mg/l/4h Rat LC50
	Ethylbenzene	Skin 3200 mg/kg Rabbit LD50 Ingestion 3500 mg/kg Rat LD50 Inhalation 17.3 mg/l/4h Rat LC50 Skin 15380 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. 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, dryness, rash and skin irritation. 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, headache, dizziness, vertigo, nausea and fatigue. The severity of symptoms may vary depending on exposure conditions.									
Ingestion	Ingestion of large amounts may cause depression of the central nervous system characterized by headache, dizziness, convulsions and loss of consciousness.									
IARC/NTP Classification	<table border="0"> <thead> <tr> <th>Common name</th> <th>IARC</th> <th>NTP</th> </tr> </thead> <tbody> <tr> <td>Methyl isobutyl ketone</td> <td>2B</td> <td>-</td> </tr> <tr> <td>Ethylbenzene</td> <td>2B</td> <td>-</td> </tr> </tbody> </table> <p>IARC : 1- Carcinogenic; 2A- Probably carcinogenic; 2B- Possibly carcinogenic. NTP : K- Known to be carcinogens; R- Reasonably anticipated to be carcinogens.</p>	Common name	IARC	NTP	Methyl isobutyl ketone	2B	-	Ethylbenzene	2B	-
Common name	IARC	NTP								
Methyl isobutyl ketone	2B	-								
Ethylbenzene	2B	-								
Carcinogenicity	There is sufficient evidence for the carcinogenicity of alcoholic 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									

	<p>consumption of alcoholic beverages. The risk of cancer depends on duration and level of exposure.</p> <p>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).</p> <p>Reproductive toxicity A significant and prolonged consumption of ethyl alcohol during pregnancy can cause an increased risk of developmental abnormalities fetus humans. 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 No target organ is listed.</p>
Interactive effects	No information available for this product.
Other information	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. The oral and skin acute toxicity estimates (ATE) of the mixture were calculated to be greater than 2000 mg/kg. These values are not classified according to WHMIS 2015 and OSHA HCS 2012.

12. Ecological information


Ecological toxicity	<p>Fish - Pimephales promelas [flow-through] LC50 18 mg/L; 96h (Butyl acetate)</p> <p>Aquatic Plant - 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 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 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>Algae, Pseudokirchneriella subcapitata EC50 579 mg/L; 96h (Nitrocellulose)</p> <p>Fish - Pimephales promelas [flow-through] LC50 1190-1290 mg/L; 96 h (methyl propyl ketone)</p> <p>Aquatic Invertebrate - Daphnia magna EC50 >110 mg/L; 96 h (methyl propyl ketone) OECD 202</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 h (Isopropyl alcohol)</p> <p>Plant - Lettuce seed germination, Lactuca Sativa EC50 2100 mg/L; 72 h (Isopropyl alcohol)</p> <p>Fish - Oryzias latipes LC50 >100 mg/L; 96h (Bis(2-Ethylhexyl) adipate) OECD 203</p> <p>Aquatic Invertebrate - Daphnia magna EC50 >500 mg/L; 48h (Bis(2-Ethylhexyl) adipate) OECD 202</p> <p>Algae - Desmodesmus subspicatus EC50 >500 mg/L; 72h (Bis(2-Ethylhexyl) adipate)</p> <p>Fish - Danio rerio LC50 >179 mg/L; 96h (methyl isobutyl ketone) OECD 203</p> <p>Aquatic Invertebrate - Daphnia magna (static) EC50 1550 mg/L; 48 h (methyl isobutyl ketone) OECD 202</p> <p>Algae - Pseudokirchneriella subcapitata EC50 400 mg/L; 96 h (methyl isobutyl ketone)</p> <p>Fish - Pimephales promelas [flow-through] LC50 126-137 mg/L; 96 h (Methyl n-amyl ketone)</p> <p>Fish - Fathead minnow, Pimephales promelas - fresh water LC50 60 mg/L; 96 hr (Propyl acetate) OECD TG 203</p> <p>EC50</p>
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	<p>Aquatic Invertebrate - Daphnia Magna Straus - eau douce 91.5 mg/L; 48 hr (Propyl acetate) OECD TG 202</p> <p>Aquatic Plant - Algea, Pseudokirchnerilla subcapitata EC50 83.2 mg/L; 72 hr (Propyl acetate) OECD TG 201</p>
Persistence	Contains an or many ingredients that may be persistent in aquatic environment.
Degradability	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). Acetone is readily biodegradable at 91% in 28 days (OECD 301B). Methyl propyl ketone (CAS no 107-87-9) has been shown to readily biodegrade at 70% under aerobic and conditions (OCDE TG 301D). 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. Isobutyl alcohol is readily biodegradable, 74% in 28 days (OCDE 301D). Bis(2-Ethylhexyl) adipate is readily biodegradable >90% in 28 days (OECD Guideline 301F). Methyl isobutyl ketone is ready biodegradable at 83% in 28 days (OECD Guideline 301F). Methyl n-amyl ketone is readily biodegradable at 69% after 28 days (OECD Guideline 310). n-Propyl acetate is ready biodegradable in water, 72% in 20 days (OECD 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). 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). Ethanol has a Bioconcentration Factor (BCF) value of <10, and its Log Kow value is <0, indicating its potential to bioaccumulate is low. Acetone has a Bioconcentration Factor (BCF) of 0.65 and a partition factor Log Kow of -0.24, indicating no bioaccumulation. Methyl propyl ketone (CAS no 107-87-9) is soluble in water and has a low Bioconcentration Factor (BCF) of 3 and a log Kow of 0,93. Methyl propyl ketone is not be expected to accumulate in food chains. The Log Kow value <0.4 and bioconcentration factor (BCF) value <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). Bis(2-Ethylhexyl) adipate has a Bioconcentration Factor (BCF) of 27, indicating no bioaccumulation. Methyl isobutyl ketone is soluble in water and has a low Bioconcentration Factor (BCF) of 2 and a log Kow of 1,31. Methyl isobutyl ketone is not be expected to accumulate in food chains. Methyl n-amyl ketone has an estimated a Bioconcentration Factor (BCF) of 7 and partition coefficient log Kow of 1.98 which suggest a low potential for bioconcentration in aquatic organisms (TOXNET). n-Propyl acetate has no bioaccumulation according to its partition coefficient (Log Kow 1.24) and its bioconcentration factor (BCF) 1.8 (EPA). 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). 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. 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%). 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. Methyl propyl ketone (CAS no 107-87-9) can be volatilized from moist soil surfaces (SRC). The estimated Koc value of 75 indicates that it is expected to have high mobility in soil. 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 sediments (0.03%). Bis(2-Ethylhexyl) adipate has an estimated Koc value of 49000 which suggests that it is expected to be immobile in soil. Methyl isobutyl ketone can be volatilized from moist soil surfaces (SRC). The estimated Koc value of 120 indicates that it is expected to have high mobility in soil. Methyl n-amyl ketone can be volatilized from moist soil surfaces (SRC). The estimated Koc value of 280 indicates that it is expected to have high mobility in soil. n-Propyl acetate will be distributed to air (14.6%), water (42.7%), soil (42.6%), and sediment (<0.1%). The Koc value of n-propyl acetate can be estimated to be 10, suggesting that it is expected to have very high mobility in soil. It is expected to evaporate from moist soil surfaces (EPA). 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). 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 of residue in sewers, streams or drinking water supply. DO NOT puncture or burn even after use. 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.

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
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IATA - International Air Transport Association

Classification	UN 1263. PAINT. Class 3, PG II.
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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
Ethyl Alcohol	64-17-5	X	X		X
Acetone	67-64-1		X		
Methyl Propyl Ketone	107-87-9		X		
Nitrocellulose	9004-70-0		X		
Urea, polymer with formaldehyde, isobutylated	68002-18-6		X		
2-Butenedioic acid (Z)-, dibutyl ester, polymer with chloroethene and 1,2-propanediol mono-2-propenoate	114653-42-8		X		

Isopropyl alcohol	67-63-0	X	X		X
Isobutyl alcohol	78-83-1	X	X		X
Bis(2-Ethylhexyl) adipate	103-23-1		X		X
Methyl isobutyl ketone	108-10-1	X	X		X
Methyl n-amyl ketone	110-43-0		X		
n-Propyl acetate	109-60-4		X		
Xylene	1330-20-7	X	X		X
N,N'-Ethylene distearamide	110-30-5		X		
Ethylbenzene	100-41-4	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
Butyl acetate (normal)	123-86-4	X	X						X	
Ethyl Alcohol	64-17-5	X								
Acetone	67-64-1	X	X			X				
Methyl Propyl Ketone	107-87-9	X								
Nitrocellulose	9004-70-0	X								
Urea, polymer with formaldehyde, isobutylated	68002-18-6	X								
2-Butenedioic acid (Z)-, dibutyl ester, polymer with chloroethene and 1,2-propanediol mono-2-propenoate	114653-42-8									
Isopropyl alcohol	67-63-0	X		X					X	
Isobutyl alcohol	78-83-1	X	X							
Bis(2-Ethylhexyl) adipate	103-23-1	X								
Methyl isobutyl ketone	108-10-1	X	X	X		X	X			
Methyl n-amyl ketone	110-43-0	X								
n-Propyl acetate	109-60-4	X								
Xylene	1330-20-7	X	X	X		X	X		X	
N,N'-Ethylene distearamide	110-30-5	X								
Ethylbenzene	100-41-4	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
Ethyl Alcohol	64-17-5	X	X

Methyl isobutyl ketone	108-10-1	X	X
Ethylbenzene	100-41-4	X	

Other regulations	
	<p>WHMIS 1988</p>  <p>B2 D2A D2B</p> <p>Class B2 : Flammable Liquid Class D2A : Very toxic material causing other toxic effects Class D2B : Toxic material causing other toxic effects</p> <p>HMIS</p>  <p>③ Health ③ Flammability ① Reactivity ⓧ Protective Equipment</p> <p>NFPA</p> 

16. Other information

Date (YYYY-MM-DD)	GEMINI INDUSTRIES, INC. 2016-03-04
Version	01
Other information	<p>- This SDS and the GHS hazards classification is a French translation of the original English version (SDS) from the manufacturer.</p> <p>REFERENCES:</p> <ul style="list-style-type: none"> - 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 <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>

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