



Safety Data Sheet

H.S. C.V. SEALER



1. Identification

Product identifier	H.S. C.V. SEALER		
Product code	250-0009		
Other means of identification	HIGH SOLIDS C.V. SEALER.		
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	Distributor	Gemini Industries, Inc. 850 Flint Road Toronto, Ontario Canada M3J 2T7 Tel. 1-800-262-5710
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 (Category 1)
 Germ cell mutagenicity (Category 1B)
 Carcinogenicity (Category 1)
 Reproductive toxicity (Category 1)
 Specific target organ toxicity, single exposure (Category 3)
 Specific target organ toxicity, repeated exposure (Category 2)
 Aspiration hazard (Category 1)



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
 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
H315: Causes skin irritation
H335: May cause respiratory irritation
H336: May cause drowsiness or dizziness
H373: May cause damage to organs through prolonged or repeated exposure by inhalation
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.
P271: Use only outdoors or in a well-ventilated area.
P273: Avoid release to the environment.
P280: Wear protective gloves, protective clothing and eye protection.
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 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.
P314: Get Medical advice/attention if you feel unwell.
P305+351+338: IF IN EYES: Rinse continuously with water for several minutes. Remove contact lenses if present and easy to do. Continue rinsing.
P310: Immediately call a doctor/physician.
P308+313: IF exposed or concerned: Get medical advice/attention.
P321: Specific treatment (see section 4 of SDS or on this label).
P362+364: Take off contaminated clothing and wash before reuse.
P370+378: In case of fire: Use chemical foam, dry chemical or carbon dioxide 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 a licensed chemical disposal agency in accordance with local, regional and national regulations.

3. Composition/information on ingredients

Common name	CAS	Weight % content
Ethyl Alcohol	64-17-5	16 - 18 %
Butyl acetate (normal)	123-86-4	10 - 12 %
Distillates (petroleum), light distillate hydrotreating process, low-boiling	68410-97-9	9 - 11 %
Acetone	67-64-1	8 - 10 %
Toluene	108-88-3	7.5 - 8.5 %
Isobutyl alcohol	78-83-1	4.5 - 5.5 %
Synthetic Amorphous Fumed Silica	112945-52-5	1 - 2 %
n-Butyl Alcohol	71-36-3	1 - 2 %
n-Propyl acetate	109-60-4	1 - 2 %
N,N'-Ethylene distearamide	110-30-5	1 - 2 %
Solvent naphtha (petroleum), light aromatic (C8 to C10)	64742-95-6	0.1 - 1 %

4. First-aid measures

Inhalation	Move person to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen by trained personnel. If a problem develops or persists, seek medical attention.
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. Seek medical attention immediately.
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 small amounts 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 respiratory tract irritation. 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 (CO ₂). Do not use direct water jet.
Specific hazards arising from the chemical	Highly flammable liquid and vapour. 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.
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 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. 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. Keep away from direct sunlight and heat. 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	Ethyl alcohol: 3300 ppm. n-Butyl acetate: 1700 ppm. Acetone: 2500 ppm. Toluene: 500 ppm Isobutyl alcohol: 1600 ppm. n-Butyl Alcohol: 1400 ppm. n-Propyl acetate: 1700 ppm. Synthetic Amorphous Fumed Silica: 3000 mg/m ³ .		
Ethyl Alcohol	STEL	1000 ppm	ACGIH , BC, ON
	TWA (8h)	1000 ppm 1880 mg/m ³	RSST
Butyl acetate (normal)	STEL	200 ppm	ACGIH , ON
	TWA (8h)	200 ppm 950 mg/m ³	RSST
		20 ppm	BC
		150 ppm	ACGIH , ON
		150 ppm 713 mg/m ³	RSST
Distillates (petroleum), light distillate hydrotreating process, low-boiling	TWA (8h)	Mist 5 mg/m ³	ACGIH
Acetone	STEL	500 ppm	ACGIH , BC
		750 ppm	ON
		1000 ppm 2380 mg/m ³	RSST
	TWA (8h)	250 ppm	ACGIH , BC
		500 ppm	ON
		500 ppm 1190 mg/m ³	RSST
Toluene	TWA (8h)	20 ppm	ACGIH , BC, ON
		50 ppm 188 mg/m ³	RSST (Pc)
Isobutyl alcohol		50 ppm	

		TWA (8h)			ACGIH , BC, ON
Synthetic Amorphous Fumed Silica			50 ppm	152 mg/m ³	RSST
		TWA (8h)	Respirable Dust	1.5 mg/m ³	BC
			Respirable Dust	3 mg/m ³	ACGIH , ON
			Total Dust	4 mg/m ³	BC
			Respirable Dust	6 mg/m ³	RSST
			Total Dust	10 mg/m ³	ACGIH , ON
n-Butyl Alcohol		Ceiling	30 ppm		BC
			50 ppm	152 mg/m ³	RSST (Pc, RP)
		TWA (8h)	15 ppm		BC
			20 ppm		ACGIH , ON
N,N'-Ethylene distearamide		TWA (8h)	Respirable Dust	3 mg/m ³	ACGIH
			Total Dust	10 mg/m ³	ACGIH
n-Propyl acetate		STEL	250 ppm		ACGIH , BC, ON
			250 ppm	1040 mg/m ³	RSST
		TWA (8h)	200 ppm		ACGIH , BC, ON
			200 ppm	835 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. 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	Clear or coloured	Flammability limits	N/Av.
Odour	Solvent odor	Flash point	<0 °C (32 °F)

Odour threshold	N/Av.	Auto-ignition temperature	343°C (649.4°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	56 to 200°C (132.8 to 392°F)	Relative density	0.914 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	<20.5 cSt @ 40°C (104°F)
Percent Volatile	64.56%	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 electro-static discharge. Avoid contact with incompatible materials.
Incompatible materials	Strong oxidizing agents (e.g. nitric acid, perchloric acid, peroxides, chlorates and perchlorates), strong bases (e.g. hydroxides, solutions of ammonia, amines, carbonates), strong acids (e.g. hydrochloric acid, sulfuric acid, phosphoric acid).
Hazardous decomposition products	Under normal conditions of storage and use, hazardous decomposition products should not be produced.

11. Toxicological information

Numerical measures of toxicity	Ethyl Alcohol	Ingestion 7060 mg/kg	Rat	LD50
		Inhalation 39 mg/l/4h	Mouse	LC50
		Skin 20000 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
	Distillates (petroleum), light distillate hydrotreating process, low-boiling	Ingestion >2000 mg/kg	Rat	LD50
		Inhalation >12408 ppm/4h	Rat	LC50
		Skin >2000 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
	Toluene	Ingestion 5600 mg/kg	Rat	LD50
		Inhalation 30.2 mg/l/4h	Rat	LC50

	Isobutyl alcohol	Skin 12600 mg/kg Ingestion 2460 mg/kg Inhalation 19.2 mg/l/4h	Rabbit LD50 Rat LD50 Rat LC50
	n-Propyl acetate	Skin 3400 mg/kg Ingestion 8700 mg/kg Inhalation >16.7 mg/l/4h	Rabbit LD50 Rat LD50 Rat LC50
	n-Butyl Alcohol	Skin >17800 mg/kg Ingestion 790 mg/kg Inhalation 24.2 mg/l/4h	Rabbit LD50 Rat LD50 Rat LC50
	N,N'-Ethylene distearamide	Skin 3400 mg/kg Ingestion >5000 mg/kg Inhalation >14.6 mg/l/4h	Rabbit LD50 Rat LD50 Rat LC50
	Synthetic Amorphous Fumed Silica	Skin >20000 mg/kg Ingestion >5000 mg/kg Inhalation >2.08 mg/l/4h	Rat LD50 Rat LD50 Rat LC50
	Solvent naphtha (petroleum), light aromatic (C8 to C10)	Skin >5000 mg/kg Ingestion 8400 mg/kg Inhalation >5.2 mg/l/4h Skin >3750 mg/kg	Rabbit LD50 Rat LD50 Rat LC50 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. Butyl Alcohol instilled in rabbit eyes resulted in severe corneal irritation and eye damage (OECD 405). Application in excess of 5% dilution solution gave irritating effect. 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. 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	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. Repeated and prolonged occupational overexposure to solvents may cause damage to target organs.	
	Ingestion	Ingestion can cause abdominal pain, nausea, cramps, headache, dizziness and vomiting. 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	No ingredients listed.	
	Carcinogenicity	Contains material which can cause cancer. In the absence of specific test data, the classification of Distillates (petroleum), light distillate hydrotreating process, low-boiling (CAS no 68410-97-9) should be determined based on the levels of benzene (CAS no. 71-43-2). This classification need not apply if it can be shown that the chemical contains less than 0.1 % w/w benzene. In the absence of specific test data, the classification of the mixture solvent naphtha (petroleum), light aromatic (C8-C10) (CAS No. 64742-95-6) should be determined based on the levels of benzene (CAS no. 71-43-2). This classification need not apply if it can be shown that the chemical contains less than 0.1 % w/w benzene. 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. There is sufficient evidence in humans for the carcinogenicity of occupational	


	<p>exposure as a painter (IARC Group 1). Occupational exposure as a painter causes mesothelioma, and cancers of the urinary bladder and lung (IARC Monographs, Volume 100F (2012)).</p> <p>Mutagenicity Contains ingredients potentially mutagenic. In the absence of specific test data, the classification of Distillates (petroleum), light distillate hydrotreating process, low-boiling (CAS no 68410-97-9) should be determined based on the levels of benzene (CAS no. 71-43-2). This classification need not apply if it can be shown that the chemical contains less than 0.1 % w/w benzene. In the absence of specific test data, the classification of the mixture solvent naphtha (petroleum), light aromatic (C8-C10) (CAS No. 64742-95-6) should be determined based on the levels of benzene (CAS no. 71-43-2). This classification need not apply if it can be shown that the chemical contains less than 0.1 % w/w benzene.</p> <p>Reproductive toxicity Toluene cross the placental barrier in humans and it is found in breast milk in animals. Toluene has an embryotoxic and/or fetotoxic hazard in humans (US EPA, 2005).</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, hearing organs, kidneys, liver.</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>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 5.8 mg/L; 96 h (Toluene)</p> <p>Aquatic Invertebrate - Daphnia magna EC50 5.46-9.83 mg/L; 48 h (Toluene)</p> <p>Aquatic Invertebrate - Daphnia magna EC50 1983 mg/L; 48h (n-Butyl Alcohol) OEDC 202</p> <p>Fish - Pimephales promelas [static] LC50 376 mg/L; 96h (n-Butyl Alcohol) OEDC 203</p> <p>Algae - Desmodesmus subspicatus EC50 >500mg/L; 72h (n-Butyl Alcohol)</p> <p>Fish - Oncorhynchus mykiss - Rainbow trout LC50 4740 mg/L; 96 h (acetone)</p> <p>Aquatic Invertebrate - Daphnia magna EC50 12600-12700 mg/L; 48 h (acetone)</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 - Fathead minnow, Pimephales promelas - fresh water LC50 60 mg/L; 96 hr (Propyl acetate) OECD TG 203</p> <p>Aquatic Invertebrate - Daphnia Magna Straus - eau douce EC50 91.5 mg/L; 48 hr (Propyl acetate) OECD TG 202</p> <p>Fish - Pimephales promelas [semi-static] LC50 8.2 mg/L; 96 h (CAS no 68410-97-9) ASTM method E729-88a</p> <p>Aquatic Invertebrate - Daphnia magna (semi-static) EC50 2.5-10 mg/L; 48 h (CAS no 68410-97-9)</p> <p>Fish - Pimephales promelas [semi-static] GESO 2.6 mg/L; 14 days (CAS no 68410-97-9)</p>
Persistence	May be persistent in the environment.
Degradability	The product is a hydrocarbon mixture in which some ingredients are not readily biodegradable (OECD 301F). Ethanol is readily biodegradable under aerobic and anaerobic conditions (OECD Test Guideline

	<p>301D). n-Butyl acetate is readily biodegradable (96% in 28 days) OECD Guideline 301D. n-Butyl Alcohol is readily biodegradable. Degradation by Biochemical Oxygen Demand BOD (O₂ consumption) was reported as 92% after 20 days. 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). Isobutyl alcohol is readily biodegradable, 74% in 28 days (OCDE 301D). Acetone is readily biodegradable at 91% in 28 days (OECD 301B). n-Propyl acetate is ready biodegradable in water, 72% in 20 days (OECD 301D).</p>
Bioaccumulative potential	<p>The product is a hydrocarbon mixture of which some ingredients have different bioaccumulation potentials. Ethanol has a Bioconcentration Factor (BCF) value of <10, and its Log Kow value is <0, indicating its potential to bioaccumulate is low. 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). Isobutyl alcohol has a low potential to bioaccumulate with a bioconcentration factor (BCF) of 3 (TOXNET). n-Butyl alcohol has a Bioconcentration Factor (BCF) value of 3, and its Log Kow value is from 0.8 to 1, indicating its potential to bioaccumulate is very 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. Acetone has a Bioconcentration Factor (BCF) of 0.65 and a partition factor Log Kow of -0.24, indicating no bioaccumulation. n-Propyl acetate has no bioaccumulation according to its partition coefficient (Log Kow 1.24) and its bioconcentration factor (BCF) 1.8 (EPA).</p>
Mobility in soil	<p>The product is a hydrocarbon mixture of which some ingredients can evaporate into the air while others present a medium to low 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%). 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. n-Butyl alcohol is soluble in water. The estimated Koc value of 3.2 suggests 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). 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%). 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. 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).</p>
Other adverse effects	<p>This chemical does not deplete the ozone layer.</p>

13. Disposal considerations

<p>Container</p> 	<p>Important! Prevent waste generation. Use in full. DO NOT dispose 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.</p>
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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.

Acetone	67-64-1	X	X	X		X				
Toluene	108-88-3	X	X	X		X	X		X	X
Isobutyl alcohol	78-83-1	X	X							
Synthetic Amorphous Fumed Silica	112945-52-5	X								
n-Butyl Alcohol	71-36-3	X	X	X					X	
n-Propyl acetate	109-60-4	X								
N,N'-Ethylene distearamide	110-30-5	X								
Solvent naphtha (petroleum), light aromatic (C8 to C10)	64742-95-6	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
Toluene	108-88-3		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. 2016-06-02
Version	01
Other information	<p>- The GHS hazards classification in this SDS is from the original SDS provided by 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>

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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