



Safety Data Sheet

550 VOC HIGH BUILD LACQUER SEALER, CLEAR



1. Identification

Product identifier	550 VOC HIGH BUILD LACQUER SEALER, CLEAR		
Product code	200-0012		
Other means of identification	550 VOC HIGH BUILD LACQ SEALER, CLEAR.		
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	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 2A)
 Skin sensitizer (Category 1)
 Reproductive toxicity (Category 1)
 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).

DANGER

H225: Highly Flammable liquid and vapour
 H360: May damage fertility or the unborn child
 H319: Causes serious eye irritation
 H315: Causes skin irritation
 H317: May cause an allergic skin reaction
 H336: May cause drowsiness or dizziness

H373: May cause damage to organs through prolonged or repeated exposure
H401: Toxic 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.
P242: Use only non-sparking tools.
P243: Take precautionary measures against static discharge.
P261: Avoid breathing vapours, mist and spray.
P264: Wash skin thoroughly after handling.
P271: Use only 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.
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.
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.
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 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
Acetone	67-64-1	46 - 48 %
Butyl acetate (normal)	123-86-4	18 - 20 %
Rosin, maleated, polymer with glycerol	68038-41-5	9 - 10 %
Nitrocellulose	9004-70-0	6.5 - 7.5 %
Toluene	108-88-3	6.5 - 7.5 %
Bis(2-Ethylhexyl) adipate	103-23-1	3.5 - 4.5 %
Isopropyl alcohol	67-63-0	2.5 - 3.5 %
Zinc stearate	557-05-1	1.5 - 2.5 %

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 plenty of water. Remove contact lenses. Flush with water for at least 15 minutes. 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 redness and irritation to eyes. May cause redness, dryness, rash and skin irritation. May cause an allergic reaction of the skin. 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. Vapours are heavier than air and may travel to an ignition source distant from the material handling point. May be ignited by heat, sparks, flame or static electricity. Do not apply to hot surfaces. Contact with strong oxidizers may cause fire. In a fire or if heated, a pressure increase will occur and the container may burst. 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.
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	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	Acetone: 2500 ppm. Isopropyl alcohol: 2000 ppm. n-Butyl acetate: 1700 ppm. Toluene : 500 ppm.			
Acetone	STEL	500 ppm 750 ppm 1000 ppm	1782 mg/m ³ 2380 mg/m ³	ACGIH , BC ON RSST
	TWA (8h)	250 ppm 500 ppm 500 ppm	1188 mg/m ³ 1190 mg/m ³	ACGIH , BC ON RSST
Butyl acetate (normal)	STEL	200 ppm 200 ppm	950 mg/m ³	ACGIH , ON RSST
	TWA (8h)	20 ppm 150 ppm 150 ppm	713 mg/m ³	BC ACGIH , ON RSST
Toluene	TWA (8h)	20 ppm 50 ppm	188 mg/m ³	ACGIH , BC, ON RSST (Pc)
Isopropyl alcohol	STEL	400 ppm 500 ppm	1230 mg/m ³	ACGIH , BC, ON RSST
	TWA (8h)	200 ppm 400 ppm	983 mg/m ³	ACGIH , BC, ON RSST
Zinc stearate	STEL	Total Dust	20 mg/m ³	BC
	TWA (8h)	Respirable Dust Total Dust	3 mg/m ³ 10 mg/m ³	ACGIH , BC, ON ACGIH , BC, ON, 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. 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	White or coloured	Flammability limits	N/Av.
Odour	Solvent	Flash point	0°C (32°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	56°C (132.8°F)	Relative density	0.88 to 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	76.41%	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 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	<table border="0"> <tr> <td data-bbox="289 113 747 218">Acetone</td> <td data-bbox="763 113 1023 147">Ingestion 5800 mg/kg</td> <td data-bbox="1039 113 1136 147">Rat</td> <td data-bbox="1153 113 1201 147">LD50</td> </tr> <tr> <td></td> <td data-bbox="763 147 1023 180">Inhalation 71.4 mg/l/4h</td> <td data-bbox="1039 147 1136 180">Rat</td> <td data-bbox="1153 147 1201 180">LC50</td> </tr> <tr> <td></td> <td data-bbox="763 180 1023 214">Skin 15800 mg/kg</td> <td data-bbox="1039 180 1136 214">Rabbit</td> <td data-bbox="1153 180 1201 214">LD50</td> </tr> <tr> <td data-bbox="289 218 747 323">Butyl acetate (normal)</td> <td data-bbox="763 218 1023 252">Ingestion 10768 mg/kg</td> <td data-bbox="1039 218 1136 252">Rat</td> <td data-bbox="1153 218 1201 252">LD50</td> </tr> <tr> <td></td> <td data-bbox="763 252 1023 285">Inhalation >32.5 mg/l/4h</td> <td data-bbox="1039 252 1136 285">Rat</td> <td data-bbox="1153 252 1201 285">LC50</td> </tr> <tr> <td></td> <td data-bbox="763 285 1023 319">Skin >17600 mg/kg</td> <td data-bbox="1039 285 1136 319">Rabbit</td> <td data-bbox="1153 285 1201 319">LD50</td> </tr> <tr> <td data-bbox="289 323 747 386">Rosin, maleated, polymer with glycerol</td> <td data-bbox="763 323 1023 357">Ingestion >5000 mg/kg</td> <td data-bbox="1039 323 1136 357">Rat</td> <td data-bbox="1153 323 1201 357">LD50</td> </tr> <tr> <td></td> <td data-bbox="763 357 1023 390">Skin >2000 mg/kg</td> <td data-bbox="1039 357 1136 390">Rabbit</td> <td data-bbox="1153 357 1201 390">LD50</td> </tr> <tr> <td data-bbox="289 394 747 428">Nitrocellulose</td> <td data-bbox="763 394 1023 428">Ingestion >5000 mg/kg</td> <td data-bbox="1039 394 1136 428">Rat</td> <td data-bbox="1153 394 1201 428">LD50</td> </tr> <tr> <td data-bbox="289 432 747 466">Toluene</td> <td data-bbox="763 432 1023 466">Ingestion 5600 mg/kg</td> <td data-bbox="1039 432 1136 466">Rat</td> <td data-bbox="1153 432 1201 466">LD50</td> </tr> <tr> <td></td> <td data-bbox="763 466 1023 499">Inhalation 30.2 mg/l/4h</td> <td data-bbox="1039 466 1136 499">Rat</td> <td data-bbox="1153 466 1201 499">LC50</td> </tr> <tr> <td></td> <td data-bbox="763 499 1023 533">Skin 12600 mg/kg</td> <td data-bbox="1039 499 1136 533">Rabbit</td> <td data-bbox="1153 499 1201 533">LD50</td> </tr> <tr> <td data-bbox="289 537 747 571">Bis(2-Ethylhexyl) adipate</td> <td data-bbox="763 537 1023 571">Ingestion 9100 mg/kg</td> <td data-bbox="1039 537 1136 571">Rat</td> <td data-bbox="1153 537 1201 571">LD50</td> </tr> <tr> <td></td> <td data-bbox="763 571 1023 604">Inhalation >5.7 mg/l/4h</td> <td data-bbox="1039 571 1136 604">Rat</td> <td data-bbox="1153 571 1201 604">LC50</td> </tr> <tr> <td></td> <td data-bbox="763 604 1023 638">Skin 17297 mg/kg</td> <td data-bbox="1039 604 1136 638">Rabbit</td> <td data-bbox="1153 604 1201 638">LD50</td> </tr> <tr> <td data-bbox="289 642 747 676">Isopropyl alcohol</td> <td data-bbox="763 642 1023 676">Ingestion 5045 mg/kg</td> <td data-bbox="1039 642 1136 676">Rat</td> <td data-bbox="1153 642 1201 676">LD50</td> </tr> <tr> <td></td> <td data-bbox="763 676 1023 709">Inhalation 66.1 mg/l/4h</td> <td data-bbox="1039 676 1136 709">Rat</td> <td data-bbox="1153 676 1201 709">LC50</td> </tr> <tr> <td></td> <td data-bbox="763 709 1023 743">Skin 6280 mg/kg</td> <td data-bbox="1039 709 1136 743">Rat</td> <td data-bbox="1153 709 1201 743">LD50</td> </tr> <tr> <td data-bbox="289 747 747 781">Zinc stearate</td> <td data-bbox="763 747 1023 781">Ingestion >10000 mg/kg</td> <td data-bbox="1039 747 1136 781">Rat</td> <td data-bbox="1153 747 1201 781">LD50</td> </tr> <tr> <td></td> <td data-bbox="763 781 1023 814">Inhalation >5 mg/l/4h</td> <td data-bbox="1039 781 1136 814">Rat</td> <td data-bbox="1153 781 1201 814">LC50</td> </tr> <tr> <td></td> <td data-bbox="763 814 1023 848">Skin >2000 mg/kg</td> <td data-bbox="1039 814 1136 848">Rabbit</td> <td data-bbox="1153 814 1201 848">LD50</td> </tr> </table>	Acetone	Ingestion 5800 mg/kg	Rat	LD50		Inhalation 71.4 mg/l/4h	Rat	LC50		Skin 15800 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	Rosin, maleated, polymer with glycerol	Ingestion >5000 mg/kg	Rat	LD50		Skin >2000 mg/kg	Rabbit	LD50	Nitrocellulose	Ingestion >5000 mg/kg	Rat	LD50	Toluene	Ingestion 5600 mg/kg	Rat	LD50		Inhalation 30.2 mg/l/4h	Rat	LC50		Skin 12600 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	Isopropyl alcohol	Ingestion 5045 mg/kg	Rat	LD50		Inhalation 66.1 mg/l/4h	Rat	LC50		Skin 6280 mg/kg	Rat	LD50	Zinc stearate	Ingestion >10000 mg/kg	Rat	LD50		Inhalation >5 mg/l/4h	Rat	LC50		Skin >2000 mg/kg	Rabbit	LD50
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Likely routes of exposure	Skin, eyes, inhalation, ingestion.																																																																																				
Delayed, immediate and chronic effects	<table border="0"> <tr> <td data-bbox="289 957 519 1062">Eye contact</td> <td data-bbox="535 957 1565 1062">May cause severe eye irritation or eye damage. Eye Irritation/Corrosion, Rabbit (OECD TG 405): tests performed with each ingredient of this mixture gave not irritating to irritating results.</td> </tr> <tr> <td data-bbox="289 1066 519 1192">Skin contact</td> <td data-bbox="535 1066 1565 1192">May cause redness and slight irritation of the skin. Prolonged and repeated contact may cause dry skin, irritation or dermatitis. Skin Irritation/Corrosion, Rabbit (OECD 404) : tests performed with each ingredient of this mixture gave not irritating to irritating results.</td> </tr> <tr> <td data-bbox="289 1197 519 1297">Inhalation</td> <td data-bbox="535 1197 1565 1297">Excessive inhalation is harmful. 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.</td> </tr> <tr> <td data-bbox="289 1302 519 1360">Ingestion</td> <td data-bbox="535 1302 1565 1360">Ingestion of large amounts may cause depression of the central nervous system characterized by headache, dizziness, convulsions and loss of consciousness.</td> </tr> <tr> <td data-bbox="289 1365 519 1491">Respiratory or skin sensitization</td> <td data-bbox="535 1365 1565 1491">Rosin, maleated, polymer with glycerol (CAS no 68038-41-5) may be a skin sensitizer (guinea pigs; EPA - TSCATS, OECD 429). Rosin and some rosin derivatives have been reported to cause allergic skin reaction (sensitization) in susceptible individuals after repeated or prolonged contact.</td> </tr> <tr> <td data-bbox="289 1495 519 1554">IARC/NTP Classification</td> <td data-bbox="535 1495 1565 1554">No ingredients listed.</td> </tr> <tr> <td data-bbox="289 1558 519 1617">Carcinogenicity</td> <td data-bbox="535 1558 1565 1617">Ingredients present at levels greater than or equal to 0.1% of this product are not listed as a carcinogen by IARC, ACGIH, NIOSH, NTP or OSHA.</td> </tr> <tr> <td data-bbox="289 1621 519 1680">Mutagenicity</td> <td data-bbox="535 1621 1565 1680">Ingredients in this product present at levels greater than or equal to 0.1% are not known to cause mutagenic effects.</td> </tr> <tr> <td data-bbox="289 1684 519 2055">Reproductive toxicity</td> <td data-bbox="535 1684 1565 2055">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. Rat inhalation studies provide strong evidence of developmental toxicity (lower birth weight, biochemical changes and long-lasting developmental neurotoxicity) in the absence of maternal toxicity. No effect was observed on the implants, mortality and malformations (SIDS).</td> </tr> </table>	Eye contact	May cause severe eye irritation or eye damage. Eye Irritation/Corrosion, Rabbit (OECD TG 405): tests performed with each ingredient of this mixture gave not irritating to irritating results.	Skin contact	May cause redness and slight irritation of the skin. Prolonged and repeated contact may cause dry skin, irritation or dermatitis. Skin Irritation/Corrosion, Rabbit (OECD 404) : tests performed with each ingredient of this mixture gave not irritating to irritating results.	Inhalation	Excessive inhalation is harmful. 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.	Respiratory or skin sensitization	Rosin, maleated, polymer with glycerol (CAS no 68038-41-5) may be a skin sensitizer (guinea pigs; EPA - TSCATS, OECD 429). Rosin and some rosin derivatives have been reported to cause allergic skin reaction (sensitization) in susceptible individuals after repeated or prolonged contact.	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IARC/NTP Classification	No ingredients listed.																																																																																				
Carcinogenicity	Ingredients present at levels greater than or equal to 0.1% of this product are not listed as a carcinogen by IARC, ACGIH, NIOSH, NTP or OSHA.																																																																																				
Mutagenicity	Ingredients in this product present at levels greater than or equal to 0.1% are not known to cause mutagenic effects.																																																																																				
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. Rat inhalation studies provide strong evidence of developmental toxicity (lower birth weight, biochemical changes and long-lasting developmental neurotoxicity) in the absence of maternal toxicity. No effect was observed on the implants, mortality and malformations (SIDS).																																																																																				


	<p>Specific target organ toxicity - single exposure Central nervous system.</p> <p>Specific target organ toxicity - repeated exposure Central nervous system, kidneys, liver, ears.</p>
Interactive effects	No information available for this product.
Other information	The oral and skin acute toxicity estimates (ATE) of the mixture were calculated to be greater than 2000 mg/kg. The acute toxicity estimate (ATE) by inhalation of the mixture was calculated to be greater than 20 mg/L/4h. This value is not classified according to GHS. These values are not classified according to WHMIS 2015 and OSHA HCS 2012.

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>Algae, Pseudokirchneriella subcapitata EC50 579 mg/L; 96h (Nitrocellulose)</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 - Pimephales promelas - Fresh water LC50 18 mg/L; 96 h (n-Butyl acetate) OECD 203</p> <p>Aquatic Invertebrate - Daphnia magna EC50 44 mg/L; 48 h (n-Butyl acetate)</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	Contains an or many ingredients that may be persistent in aquatic environment.
Degradability	<p>Acetone undergoes slow photolysis in air (half-life time T_{1/2} = 80 h) and in water (T_{1/2} >43 h). n-Butyl acetate is readily biodegradable (96% in 28 days) OECD Guideline 301D. Rosin, maleated, polymer with glycerol (CAS no 68038-41-5) is of low solubility and is not readily biodegradable. 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). Bis(2-Ethylhexyl) adipate is readily biodegradable >90% in 28 days (OECD Guideline 301F). 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). 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.</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. 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). Rosin, maleated, polymer with glycerol (CAS no 68038-41-5) has a partition coefficient Log Kow >4, which show some potential to bioaccumulation. 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. Bis(2-Ethylhexyl) adipate has a Bioconcentration Factor (BCF) of 27, indicating no bioaccumulation. The Log Kow value <0.4 and bioconcentration factor (BCF) value <1 for isopropyl alcohol show no potential to bioaccumulate (IUCLID).</p>
Mobility in soil	

	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-Butyl acetate will be distributed to air (93.4%), water (5.78%), soil (0.792%), and sediment (<0.1%). The Koc value of n-butyl acetate can be estimated to be 19, suggesting that it is expected to have very high mobility in soil. Toluene will rapidly evaporate into the atmosphere because of its low soil absorption and its low solubility in water. Its Koc values range from 37 to 178 in a sandy soil suggest that toluene is expected to have high to moderate mobility in soil (TOXNET Data). Bis(2-Ethylhexyl) adipate has an estimated Koc value of 49000 which suggests that it is expected to be immobile in soil. Isopropyl alcohol is soluble in water and will quickly evaporate into the air. There is no partition in the ground.
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
Acetone	67-64-1		X		
Butyl acetate (normal)	123-86-4	X	X		X
Rosin, maleated, polymer with glycerol	68038-41-5		X		
Nitrocellulose	9004-70-0		X		
Toluene	108-88-3	X	X		X
Bis(2-Ethylhexyl) adipate	103-23-1		X		X
Isopropyl alcohol	67-63-0	X	X		X
Zinc stearate	557-05-1		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
Acetone	67-64-1	X	X			X				
Butyl acetate (normal)	123-86-4	X	X						X	
Rosin, maleated, polymer with glycerol	68038-41-5									
Nitrocellulose	9004-70-0	X								
Toluene	108-88-3	X	X	X		X	X		X	X
Bis(2-Ethylhexyl) adipate	103-23-1	X								
Isopropyl alcohol	67-63-0	X		X					X	
Zinc stearate	557-05-1	X								

- TSCA: Toxic Substance Control Act
- CERCLA: Comprehensive Environmental Response, Compensation, and Liability Act list of hazardous substances
- EPCRA 313: Emergency Planning and Community Right-to-Know Act, Section 313 Toxic Chemicals
- EPCRA 302/304: Emergency Planning and Community Right-to-Know Act, Section 302/304 Extremely Hazardous Substances
- CAA 112(b) HON: Clean Air Act - Hazardous Organic National Emission Standard for Hazardous Air Pollutant
- CAA 112(b) HAP: Clean Air Act - Hazardous Air Pollutants lists pollutants
- CAA 112(r): Clean Air Act - Regulated Chemicals for Accidental Release Prevention
- CWA 311: Clean Water Act - List of Hazardous Substances
- CWA Priority: Clean Water Act - Priority Pollutant list

California Proposition 65

Common name	CAS	Cancer	Reproductive and Developmental Toxicity
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

3+ Health
3 Flamability
3 Reactivity
X Protective Equipment

NFPA**16. Other information**

Date (YYYY-MM-DD)	GEMINI INDUSTRIES, INC. 2016-02-15
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> <p>To the best of our knowledge, the information contained herein is accurate. However, neither Préventis System nor any of its subsidiaries assumes any liability whatsoever for the accuracy or completeness of the information contained herein. Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.</p>