



Safety Data Sheet

Water Clear Rubbed Effect Lacquer



1. Identification

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| Product identifier | Water Clear Rubbed Effect Lacquer | | |
| Product code | 163 | | |
| Other means of identification | N.Av. | | |
| Recommended use of the chemical and restrictions on use | A protective and/or decorative finish or accompanying paint product. Not recommended for any other use not detailed on product data sheet or label. | | |
| Manufacturer | GEMINI INDUSTRIES, INC. 2300 Holloway Drive El Reno, OK 73036 USA Tel. 1-800-262-5710 Fax 1-405-262-9310 www.gemini-coatings.com | | |
| Emergency phone number | 24-hour Emergency (Spill, Leak, Exposure or accident) INFOTRAC 800-535-5053 Outside USA, Call Collect 1-352-323-3500 (French & English) HAZMAT Response and MSDS Help: EMI 800-510-8510 | | |

2. Hazard identification

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| 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)
- Carcinogenicity (Category 2)
- Reproductive toxicity (Category 2)
- Specific target organ toxicity, single exposure (Category 3)
- Specific target organ toxicity, repeated exposure (Category 2)
- Aspiration hazard (Category 1)

DANGER

- H225: Highly flammable liquid and vapour
- H360D: May damage the unborn child
- H304: May be fatal if swallowed and enters airways
- H319: Causes serious eye irritation
- H315: Causes skin irritation
- H336: May cause drowsiness or dizziness

H351: Suspected of causing cancer
H373: May cause damage to organs through prolonged or repeated exposure by inhalation
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 equipment.
P242: Use only non-sparking tools.
P243: Take precautionary measures against static discharge.
P260: Do not breathe dusts and spray.
P264: Wash skin thoroughly after handling.
P271: Use only outdoors or in a well-ventilated area.
P280: Wear protective gloves, protective clothing and eye protection.
P314: Get Medical advice/attention if you feel unwell.
P301+310+331: IF SWALLOWED: Immediately call a POISON CENTER or a physician. Do NOT induce vomiting.
P303+361+353: IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water [or shower].
P332+313: If skin irritation occurs: Get medical advice or attention.
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.
P362+364: Take off contaminated clothing and wash before reuse.
P370+378: In case of fire: Use dry sand, dry chemical or chemical foam to extinguish.
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 |
|---------------------------|-----------|------------------|
| Toluene | 108-88-3 | 37 - 41 % |
| Acetone | 67-64-1 | 15 - 19 % |
| Butyl acetate (normal) | 123-86-4 | 10 - 14 % |
| Nitrocellulose | 9004-70-0 | 7 - 11 % |
| Bis(2-Ethylhexyl) adipate | 103-23-1 | 3 - 5 % |
| Isopropyl alcohol | 67-63-0 | 2 - 4 % |
| 2-Butoxyethanol | 111-76-2 | 2 - 4 % |
| Ethylbenzene | 100-41-4 | 0.1 - 1 % |

4. First-aid measures

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| Inhalation | Move person to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen by trained personnel. If a problem develops or persists, seek medical attention. |
| Skin contact | Wash skin with warm water and mild soap for at least 15 minutes. Remove contaminated clothing and wash before reuse. Avoid touching eyes with contaminated body parts. If a problem develops or persists, seek medical attention. |
| Eye contact | IMMEDIATELY! Flush with water for at least 15 minutes. Remove contact lenses if easy to do. Hold eyelids apart to rinse properly. If a problem develops or persists, seek medical attention. |
| Ingestion | |

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| | DO NOT induce vomiting, unless recommended by medical personnel. Never give anything by mouth if victim is unconscious or convulsing. If victim is conscious wash out mouth with water and give 1-2 glasses of water to drink. If spontaneous vomiting occurs, keep head below hip level to prevent aspiration into the lungs. Seek medical attention or contact a Poison Centre immediately. |
| Other | No information available. |
| Symptoms | May cause redness and irritation to eyes. May cause redness, dryness, rash and skin irritation. 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

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| Suitable extinguishing media | Dry chemicals, alcohol resistant foam, carbon dioxide (CO ₂). Do not use a heavy water jet. |
| Specific hazards arising from the chemical | Highly flammable liquid and vapour. 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. |
| Special protective equipment | Firefighters must wear self contained breathing apparatus with full face mask. Firefighting suit may not be efficient against chemicals. |
| Special protective actions for fire-fighters | Use water spray to cool fire-exposed containers. Water spray can reduce the intensity of the flames. However, the water jets can spread the fire. If water is used, fog nozzles are preferable. |

6. Accidental release measures

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| Personal precautions, protective equipment and emergency procedures | Do not touch spilled material. Make sure to wear personal protective equipment mentioned in this Safety Data Sheet. |
| Environmental precautions | Prevent entry into sewers, closed areas and release to the environment. For a large spill, consult the Department of Environment or the relevant authorities. |
| Methods and materials for containment and cleaning up | Remove sources of ignition. Ventilate the area well. Stop leak, if it's possible to do so without risk. Absorb with inert material (soil, sand, vermiculite) and place in an appropriate waste disposal clearly identified. Use non-sparking and antistatic tools. Dispose via a licensed waste disposal contractor. Finish cleaning the contaminated surface by rinsing with soapy water. |

7. Handling and storage

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| Precautions for safe handling | Keep away from heat, sparks and open flame. 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. Do not breathe vapours, mists or aerosols. 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. |
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| 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

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| Immediately Dangerous to Life or Health | Toluene: 500 ppm. Acetone: 2500 ppm. n-Butyl acetate: 1700 ppm. Isopropyl alcohol: 2000 ppm. 2-Butoxyethanol: 700 ppm. Ethylbenzene: 800 ppm. | | | |
| Toluene | TWA (8h) | 20 ppm 50 ppm | 188 mg/m ³ | ACGIH , BC, ON RSST (Pc) |
| Acetone | STEL | 500 ppm 1000 ppm | 2380 mg/m ³ | ACGIH , BC, ON RSST |
| Butyl acetate (normal) | TWA (8h) | 250 ppm 500 ppm | 1190 mg/m ³ | ACGIH , BC, ON RSST |
| | 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 |
| 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 |
| | TWA (8h) | 20 ppm 20 ppm | 97 mg/m ³ | ACGIH , BC, ON RSST |
| Ethylbenzene | STEL | 125 ppm 20 ppm 100 ppm | 543 mg/m ³ 434 mg/m ³ | RSST ACGIH , BC, ON RSST |
| | TWA (8h) | 20 ppm | | |
| | TWA (8h) | 100 ppm | | |
| Appropriate engineering controls | Provide sufficient mechanical ventilation (general or local exhaust) to keep the airborne concentrations of vapours, mists, aerosols or dust below their respective occupational exposure limits. | | | |
| Individual protection measures | | | | |
| Eye | Wear chemical splash goggles. If risk of contact with eyes or the face, wear a face shield. | | | |
| 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

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| Physical state | Liquid | Flammability | Flammable |
| Colour | Clear or coloured | Flammability limits | N/Av. |
| Odour | Solvent | Flash point | 0°C (32°F) |
| Odour threshold | N/Av. | Auto-ignition temperature | 170°C (338°F) |
| pH | N/Av. | 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 214°C (132.8 to 417.2°F) | Relative density | 0.9237 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 | 76.329% | Molecular mass | N/Av. |

N/Av.: Not Available N/Av.: Not Applicable Und.: Undetermined N/E: Not Established

10. Stability and reactivity

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| Reactivity | No information available. |
| Chemical stability | Stable under recommended storage conditions. |
| Possibility of hazardous reactions (including polymerizations) | A dangerous reaction will not occur. |
| Conditions to avoid | Avoid heat, flame and sparks. Avoid contact with incompatible materials. |
| Incompatible materials | Strong bases, strong mineral acids, strong oxidizing agents (e.g. chlorine, fluorine, nitric acid, perchloric acid, peroxides, nitrates, chlorates, chromates, permanganates and perchlorates). |
| Hazardous decomposition products | Under normal conditions of storage and use, hazardous decomposition products should not be produced. |

11. Toxicological information

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| Numerical measures of toxicity | <table border="0"> <tbody> <tr> <td rowspan="3">Toluene</td> <td>Ingestion</td> <td>5600 mg/kg</td> <td>Rat</td> <td>LD50</td> </tr> <tr> <td>Inhalation</td> <td>30.2 mg/l/4h</td> <td>Rat</td> <td>LC50</td> </tr> <tr> <td>Skin</td> <td>12600 mg/kg</td> <td>Rabbit</td> <td>LD50</td> </tr> <tr> <td rowspan="3">Acetone</td> <td>Ingestion</td> <td>5800 mg/kg</td> <td>Rat</td> <td>LD50</td> </tr> <tr> <td>Inhalation</td> <td>71.4 mg/l/4h</td> <td>Rat</td> <td>LC50</td> </tr> <tr> <td>Skin</td> <td>15800 mg/kg</td> <td>Rabbit</td> <td>LD50</td> </tr> <tr> <td rowspan="3">Butyl acetate (normal)</td> <td>Ingestion</td> <td>10768 mg/kg</td> <td>Rat</td> <td>LD50</td> </tr> <tr> <td>Inhalation</td> <td>>32.5 mg/l/4h</td> <td>Rat</td> <td>LC50</td> </tr> <tr> <td>Skin</td> <td>>17600 mg/kg</td> <td>Rabbit</td> <td>LD50</td> </tr> <tr> <td>Nitrocellulose</td> <td>Ingestion</td> <td>>5000 mg/kg</td> <td>Rat</td> <td>LD50</td> </tr> <tr> <td rowspan="3">Bis(2-Ethylhexyl) adipate</td> <td>Ingestion</td> <td>9100 mg/kg</td> <td>Rat</td> <td>LD50</td> </tr> <tr> <td>Inhalation</td> <td>>5.7 mg/l/4h</td> <td>Rat</td> <td>LC50</td> </tr> <tr> <td>Skin</td> <td>17297 mg/kg</td> <td>Rabbit</td> <td>LD50</td> </tr> <tr> <td rowspan="3">Isopropyl alcohol</td> <td>Ingestion</td> <td>5045 mg/kg</td> <td>Rat</td> <td>LD50</td> </tr> <tr> <td></td> <td>3600 mg/kg</td> <td>Mouse</td> <td>LD50</td> </tr> <tr> <td>Inhalation</td> <td>66.1 mg/l/4h</td> <td>Rat</td> <td>LC50</td> </tr> <tr> <td rowspan="5">2-Butoxyethanol</td> <td>Skin</td> <td>6280 mg/kg</td> <td>Rat</td> <td>LD50</td> </tr> <tr> <td>Ingestion</td> <td>1414 mg/kg</td> <td>Guinea pig</td> <td>LD50</td> </tr> <tr> <td></td> <td>560 mg/kg</td> <td>Rat</td> <td>LD50</td> </tr> <tr> <td>Inhalation</td> <td>2.21 mg/l/4h</td> <td>Rat</td> <td>LC50</td> </tr> <tr> <td>Skin</td> <td>>2000 mg/kg</td> <td>Guinea pig</td> <td>LD50</td> </tr> <tr> <td rowspan="5">Ethylbenzene</td> <td></td> <td>400 mg/kg</td> <td>Rabbit</td> <td>LD50</td> </tr> <tr> <td></td> <td>>2000 mg/kg</td> <td>Rat</td> <td>LD50</td> </tr> <tr> <td>Ingestion</td> <td>3500 mg/kg</td> <td>Rat</td> <td>LD50</td> </tr> <tr> <td>Inhalation</td> <td>17.3 mg/l/4h</td> <td>Rat</td> <td>LC50</td> </tr> <tr> <td>Skin</td> <td>15380 mg/kg</td> <td>Rabbit</td> <td>LD50</td> </tr> </tbody> </table> | Toluene | Ingestion | 5600 mg/kg | Rat | LD50 | Inhalation | 30.2 mg/l/4h | Rat | LC50 | Skin | 12600 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 | Butyl acetate (normal) | Ingestion | 10768 mg/kg | Rat | LD50 | Inhalation | >32.5 mg/l/4h | Rat | LC50 | Skin | >17600 mg/kg | Rabbit | LD50 | Nitrocellulose | Ingestion | >5000 mg/kg | Rat | LD50 | Bis(2-Ethylhexyl) adipate | Ingestion | 9100 mg/kg | Rat | LD50 | Inhalation | >5.7 mg/l/4h | Rat | LC50 | Skin | 17297 mg/kg | Rabbit | LD50 | Isopropyl alcohol | Ingestion | 5045 mg/kg | Rat | LD50 | | 3600 mg/kg | Mouse | LD50 | Inhalation | 66.1 mg/l/4h | Rat | LC50 | 2-Butoxyethanol | Skin | 6280 mg/kg | Rat | LD50 | Ingestion | 1414 mg/kg | Guinea pig | LD50 | | 560 mg/kg | Rat | LD50 | Inhalation | 2.21 mg/l/4h | Rat | LC50 | Skin | >2000 mg/kg | Guinea pig | LD50 | Ethylbenzene | | 400 mg/kg | Rabbit | LD50 | | >2000 mg/kg | Rat | LD50 | Ingestion | 3500 mg/kg | Rat | LD50 | Inhalation | 17.3 mg/l/4h | Rat | LC50 | Skin | 15380 mg/kg | Rabbit | LD50 |
| Toluene | Ingestion | | 5600 mg/kg | Rat | LD50 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Inhalation | | 30.2 mg/l/4h | Rat | LC50 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Skin | 12600 mg/kg | Rabbit | LD50 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 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 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Nitrocellulose | Ingestion | >5000 mg/kg | Rat | LD50 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Bis(2-Ethylhexyl) adipate | Ingestion | 9100 mg/kg | Rat | LD50 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Inhalation | >5.7 mg/l/4h | Rat | LC50 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Skin | 17297 mg/kg | Rabbit | LD50 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Isopropyl alcohol | Ingestion | 5045 mg/kg | Rat | LD50 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | 3600 mg/kg | Mouse | LD50 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Inhalation | 66.1 mg/l/4h | Rat | LC50 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 2-Butoxyethanol | Skin | 6280 mg/kg | Rat | LD50 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Ingestion | 1414 mg/kg | Guinea pig | LD50 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | 560 mg/kg | Rat | LD50 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Inhalation | 2.21 mg/l/4h | Rat | LC50 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | Skin | >2000 mg/kg | Guinea pig | LD50 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Ethylbenzene | | 400 mg/kg | Rabbit | LD50 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | >2000 mg/kg | Rat | 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 | <p>Eye contact May cause irritation, redness, tearing and blurred vision. Eye Irritation/Corrosion, Rabbit (OECD TG 405): tests performed with each ingredient of this mixture gave not irritating to irritating results.</p> <p>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.</p> <p>Inhalation Inhalation of vapours may cause central nervous system depression such as drowsiness, headache, dizziness, vertigo, nausea and fatigue. The severity of symptoms may vary depending on exposure conditions. Repeated and prolonged occupational overexposure to solvents may cause brain and nervous system damage.</p> <p>Ingestion Ingestion of large amounts may cause depression of the central nervous system characterized by headache, dizziness, convulsions and loss of consciousness. Harmful or fatal if inhaled into the lungs (ingestion/vomiting). Can enter lungs and cause damage. Signs of lung involvement include increased respiratory rate, increased heart rate, and a bluish discolouration of the skin. Coughing, choking and gagging are often noted at the time of aspiration.</p> <p>Respiratory or skin sensitization Ingredients present at levels greater than or equal to 0.1% of this product are not skin or respiratory sensitizers.</p> <p>IARC/NTP Classification Common name IARC NTP Ethylbenzene 2B - IARC : 1- Carcinogenic; 2A- Probably carcinogenic; 2B- Possibly carcinogenic. NTP : K- Known to be carcinogens; R- Reasonably anticipated to be carcinogens.</p> <p>Carcinogenicity Contains ingredient possibly carcinogenic to humans. The risk of cancer depends on duration and level of exposure.</p> <p>Mutagenicity Ingredients in this product present at levels greater than or equal to 0.1% are not known to cause mutagenic effects.</p> | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |


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|----------------------------|--|
| | <p>Reproductive toxicity Toluene (CAS no 108-88-3) has an embryotoxic and/or fetotoxic hazard in humans (US EPA, 2005).</p> <p>Specific target organ toxicity - single exposure Central nervous system.</p> <p>Specific target organ toxicity - repeated exposure Central nervous system, respiratory system, hearing organs, liver, kidneys.</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. These values are not classified according to WHMIS 2015 and OSHA HCS 2012. |

12. Ecological information

| | | | |
|---------------------------------------|--|-----------------------------------|---|
| Ecological toxicity | Fish - Pimephales promelas [flow-through] | LC50 | 18 mg/L; 96h (Butyl acetate) |
| | Algae, Desmodesmus subspicatus | EC50 | 675 mg/L; 72h (Butyl acetate) |
| | Fish - Oncorhynchus mykiss - Rainbow trout | LC50 | 5.8 mg/L; 96 h (CAS no 108-88-3) |
| | Aquatic Invertebrate - Daphnia magna | EC50 | 5.46-9.83 mg/L; 48 h (CAS no 108-88-3) |
| | Algae, Pseudokirchneriella subcapitata | EC50 | 579 mg/L; 96 h (Nitrocellulose) |
| | Fish - Fathead minnow, Pimephales promelas - fresh water | LC50 | 9640 mg/L; 96 h (CAS no 67-63-0) |
| | Aquatic Invertebrate - Crustaceans, Daphnia Magna | EC50 | 3644 mg/L; 48 h (CAS no 67-63-0) |
| | Plant - Lettuce seed germination, Lactuca Sativa | EC50 | 2100 mg/L; 72 h (CAS no 67-63-0) |
| | Fish - Lepomis macrochirus [static] | LC50 | 0.48-0.85 mg/L; 96 h (CAS no 103-23-1) |
| | Aquatic Invertebrate - Daphnia magna | EC50 | >1.6 mg/L; 48 h (CAS no 103-23-1) |
| | Algae - Desmodesmus subspicatus | EC50 | >500 mg/L; 72 h (CAS no 103-23-1) |
| | Fish - Oncorhynchus mykiss - Rainbow trout | LC50 | 4.2 mg/L; 96 h (CAS no 100-41-4) |
| | Aquatic invertebrate - Crangon franciscorum | EC50 | 0.49 mg/L; 48 h (CAS no 100-41-4) |
| | Fish - Oncorhynchus mykiss - Rainbow trout | LC50 | 4740 mg/L; 96 h (CAS no 67-64-1) |
| | Aquatic Invertebrate - Daphnia magna | EC50 | 12600-12700 mg/L; 48 h (CAS no 67-64-1) |
| | Aquatic Plant - Algae, Chlorella pyrenoidosa | EC50 | 3400 mg/L; 48 h (CAS no 67-64-1) |
| | Fish - Oncorhynchus mykiss - Rainbow trout | LC50 | 1474 mg/L; 96 h (CAS no 111-76-2) |
| Aquatic invertebrates - Daphnia magna | EC50 | 1550 mg/L; 48 h (CAS no 111-76-2) | |
| Persistence | The product contains components that may persist in the environment. | | |
| Degradability | The product is a mixture of which some ingredients are readily biodegradable (> 60% in 28 days) while other ingredients are not readily biodegradable (<60% in 28 days). | | |
| Bioaccumulative potential | The product is a mixture of which some ingredients have a low bioaccumulation potential (Log Kow of <3 and / or BCF <500) while other ingredients have some potential to bioaccumulate (Log Kow of >3 and / or | | |

| | |
|------------------------------|---|
| | BCF >500). |
| Mobility in soil | The product is a mixture of which some ingredients have a high mobility in the soil, while other ingredients have a moderate to low mobility in the soil. |
| Other adverse effects | This chemical does not deplete the ozone layer. |

13. Disposal considerations

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|  | Important! Prevent waste generation. Use in full. DO NOT dispose residue in sewers, streams or drinking water supply. Paint residues, including lacquers, dyes, shellacs, varnishes, paint solvents and thinners, can be reprocessed where there is a recovery program. Dispose via a licensed waste disposal contractor. Observe all federal, state/provincial and municipal regulations. If necessary consult the Department of Environment or the relevant authorities. |
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14. Transport information

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|-------------------------------------|--|
| UN Number | UN 1263 |
| UN Proper Shipping Name | PAINT |
| Environmental hazards | This material does not contain marine pollutant. |
| Special precautions for user | Permit required for transportation with proper DANGER placards displayed on vehicle. |

TDG - Transportation of Dangerous Goods (Canada)

| | |
|-----------------------------------|--|
| Transport hazard class(es) |  Class 3 |
| Packing group | II |

IMO/IMDG - International Maritime Transport

| | |
|-----------------------|---|
| Classification | UN 1263. PAINT. Class 3, PG II. Emergency schedules (EmS-No) F-E, S-E |
|-----------------------|---|

IATA - International Air Transport Association

| | |
|-----------------------|---------------------------------|
| Classification | UN 1263. PAINT. Class 3, PG II. |
|-----------------------|---------------------------------|

These transportation classifications are provided as a customer service. As the shipper YOU remain responsible for complying with all applicable laws and regulations, including proper transportation classification and packaging. In addition, if a domestic exemption exists, it is the responsibility of the shipper to define the application of it.

15. Regulatory information

CANADA

| Common name | CAS | CEPA | DSL | NDSL | NPRI |
|---------------------------|-----------|------|-----|------|------|
| Toluene | 108-88-3 | X | X | | X |
| Acetone | 67-64-1 | | X | | |
| Butyl acetate (normal) | 123-86-4 | X | X | | X |
| Nitrocellulose | 9004-70-0 | | X | | |
| Bis(2-Ethylhexyl) adipate | 103-23-1 | | X | | X |
| Isopropyl alcohol | 67-63-0 | X | X | | X |

| | | | | | |
|-----------------|----------|---|---|--|---|
| 2-Butoxyethanol | 111-76-2 | X | X | | 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 | CER CLA | EPCRA 313 | EPCRA 302/304 | CAA 112(b) HON | CAA 112(b) HAP | CAA 112(r) | CWA 311 | CWA Prio. |
|---------------------------|-----------|------|------------|--------------|------------------|----------------------|----------------------|---------------|---------|--------------|
| Toluene | 108-88-3 | X | X | X | | X | X | | X | X |
| Acetone | 67-64-1 | X | X | | | X | | | | |
| Butyl acetate (normal) | 123-86-4 | X | X | | | | | | X | |
| Nitrocellulose | 9004-70-0 | X | | | | | | | | |
| Bis(2-Ethylhexyl) adipate | 103-23-1 | X | | | | | | | | |
| Isopropyl alcohol | 67-63-0 | X | | X | | | | | | |
| 2-Butoxyethanol | 111-76-2 | 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 |
|--------------|----------|--------|---|
| Toluene | 108-88-3 | | X |
| Ethylbenzene | 100-41-4 | X | |

Other regulations

WHMIS 1988



B2 D2A D2B

Class B2 : Flammable Liquid

Class D2A : Very toxic material causing other toxic effects

Class D2B : Toxic material causing other toxic effects

HMIS



NFPA



16. Other information

| | |
|------------------------------|---|
| Date (YYYY-MM-DD) | GEMINI INDUSTRIES, INC. 2018-02-23 |
| Version | 01 |
| Other information | <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- The National Center for Biotechnology Information, National Institutes of Health (NIH), U.S. National Library of Medicine, www.ncbi.nlm.nih.gov <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> |