

**SECTION 1: IDENTIFICATION****Product Identifier****Product Form:** Mixture**Product Name:** HELMIPRENE 4560, HELMIPRENE 4560GR, HELMIPRENE 4560RD**Intended Use of the Product****Use of the Substance/Mixture:** No use is specified.**Name, Address, and Telephone of the Responsible Party****Company**

Helmitin Inc.

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**Emergency Telephone Number****Emergency Number** : CANUTEC 613-996-6666 / CHEMTREC 1-800-424-9300**SECTION 2: HAZARDS IDENTIFICATION****Classification of the Substance or Mixture****Classification (GHS-US)**

Flam. Liq. 2 H225

Skin Irrit. 2 H315

Eye Irrit. 2A H319

Skin Sens. 1 H317

Muta. 1B H340

Repr. 2 H361

STOT SE 3 H336

STOT RE 2 H373

Asp. Tox. 1 H304

Full text of H-phrases: see section 16

**Label Elements****GHS-US Labeling****Hazard Pictograms (GHS-US)****Signal Word (GHS-US)**

: Danger

**Hazard Statements (GHS-US)**

: H225 - Highly flammable liquid and vapor.

H304 - May be fatal if swallowed and enters airways.

H315 - Causes skin irritation.

H317 - May cause an allergic skin reaction.

H319 - Causes serious eye irritation.

H336 - May cause drowsiness or dizziness.

H340 - May cause genetic defects.

H361 - Suspected of damaging fertility or the unborn child.

H373 - May cause damage to organs (central nervous system) through prolonged or repeated exposure.

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**Precautionary Statements (GHS-US)** : P210 - Keep away from extremely high or low temperatures, ignition sources, and incompatible materials. - No smoking.  
P240 - Ground/bond container and receiving equipment.  
P241 - Use explosion-proof electrical, ventilating, and lighting equipment.  
P242 - Use only non-sparking tools.  
P243 - Take precautionary measures against static discharge.  
P260 - Do not breathe vapors, mist, or spray.  
P264 - Wash hands, forearms, and other exposed areas thoroughly after handling.  
P271 - Use only outdoors or in a well-ventilated area.  
P273 - Avoid release to the environment.  
P280 - Wear respiratory protection, protective clothing, protective gloves, eye protection.  
P301+P310 - If swallowed: Immediately call a poison center or doctor.  
P303+P361+P353 - If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.  
P304+P340 - IF INHALED: Remove person to fresh air and keep at rest in a position comfortable for breathing.  
P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
P308+P313 - If exposed or concerned: Get medical advice/attention.  
P331 - Do NOT induce vomiting.  
P333+P313 - If skin irritation or rash occurs: Get medical advice/attention.  
P337+P313 - If eye irritation persists: Get medical advice/attention.

### Other Hazards

Exposure may aggravate those with pre-existing eye, skin, or respiratory conditions. Flammable vapors can accumulate in head space of closed systems.

**Unknown Acute Toxicity (GHS-US)** Not available

## SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

### Mixture

Name	Product Identifier	% (w/w)
Acetone	(CAS No) 67-64-1	30 - 60
Heptane, branched, cyclic and linear	(CAS No) 426260-76-6	15 - 40
n-Heptane	(CAS No) 142-82-5	10 - 30
Toluene	(CAS No) 108-88-3	7 - 13
Naphtha, petroleum, hydrotreated light*	(CAS No) 64742-49-0	7 - 13
Phenol-formaldehyde polymer	(CAS No) 9003-35-4	7 - 13

\*Note: Naphtha, petroleum, hydrotreated light, CAS# 64742-49-0 contains n-Hexane CAS# 110-54-3 (45-60%).

## SECTION 4: FIRST AID MEASURES

### Description of First Aid Measures

**General:** Never give anything by mouth to an unconscious person. If you feel unwell, seek medical advice (show the label if possible).

**Inhalation:** Remove to fresh air and keep at rest in a position comfortable for breathing. Obtain medical attention if breathing difficulty persists.

**Skin Contact:** Remove contaminated clothing. Gently wash with plenty of soap and water followed by rinsing with water for at least 15 minutes. Call a POISON CENTER or doctor/physician if you feel unwell. Wash contaminated clothing before reuse.

**Eye Contact:** Rinse cautiously with water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Obtain medical attention.

**Ingestion:** Do NOT induce vomiting. Rinse mouth. Immediately call a POISON CENTER or doctor/physician.

### Most Important Symptoms and Effects Both Acute and Delayed

**General:** Causes serious eye irritation. Causes skin irritation. May cause drowsiness or dizziness. May be fatal if swallowed and enters airways. May cause an allergic skin reaction. Suspected of causing genetic defects. Suspected of damaging fertility. Suspected of damaging the unborn child. May cause damage to organs (central nervous system).

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**Inhalation:** May cause drowsiness or dizziness. Peripheral neurotoxicity has been reported in connection with over exposure to n-hexane. Prolonged exposure over a period of weeks or months to levels well above the TLV may cause neurotoxic disease, with symptoms including weakness and lack of sensation in fingers, hands, arms, feet and legs. Methyl ethyl ketone has been reported to potentiate the neurotoxic effects caused by either n-hexane or methyl-n-butyl ketone. Methyl ethyl ketone by itself does not cause a peripheral neuropathy. MEK may also potentiate the liver and kidney toxicity of haloalkane solvents.

**Skin Contact:** Causes skin irritation. Symptoms may include: Redness, pain, swelling, itching, burning, dryness, and dermatitis.

**Eye Contact:** Causes serious eye irritation. Symptoms may include: Redness, pain, swelling, itching, burning, tearing, and blurred vision.

**Ingestion:** May be fatal if swallowed and enters airways.

**Chronic Symptoms:** May cause an allergic skin reaction. Suspected of damaging fertility or the unborn child. Suspected of causing genetic defects. May cause damage to organs (central nervous system) through prolonged or repeated exposure.

### **Indication of Any Immediate Medical Attention and Special Treatment Needed**

If you feel unwell, seek medical advice (show the label where possible).

## **SECTION 5: FIRE-FIGHTING MEASURES**

### **Extinguishing Media**

**Suitable Extinguishing Media:** Water spray, fog, carbon dioxide (CO<sub>2</sub>), alcohol-resistant foam, dry chemical, or sand.

**Unsuitable Extinguishing Media:** Do not use a heavy water stream. Use of heavy stream of water may spread fire.

### **Special Hazards Arising From the Substance or Mixture**

**Fire Hazard:** Highly flammable liquid and vapor.

**Explosion Hazard:** May form flammable/explosive vapor-air mixture.

**Reactivity:** Vapors are heavier than air and may travel considerable distance to an ignition source and flash back to source of vapors. Reacts with (strong) oxidizers: (increased) risk of fire.

### **Advice for Firefighters**

**Precautionary Measures Fire:** Exercise caution when fighting any chemical fire. Under fire conditions, hazardous fumes will be present.

**Firefighting Instructions:** Use water spray or fog for cooling exposed containers. In case of major fire and large quantities: Evacuate area. Fight fire remotely due to the risk of explosion. Do not allow run-off from firefighting to enter drains or water courses – may cause explosion hazard in drains and may reignite on surface water.

**Protection During Firefighting:** Do not enter fire area without proper protective equipment, including respiratory protection.

**Hazardous Combustion Products:** Combustion produces irritating gases and vapors. Toxic vapors. Carbon oxides (CO, CO<sub>2</sub>). Hydrogen cyanide.

### **Reference to Other Sections**

Refer to section 9 for flammability properties.

## **SECTION 6: ACCIDENTAL RELEASE MEASURES**

### **Personal Precautions, Protective Equipment and Emergency Procedures**

**General Measures:** Avoid all contact with skin, eyes, or clothing. Avoid breathing (dust, vapor, mist, gas). Gas/vapor heavier than air. May accumulate in confined spaces, particularly at or below ground level. Use special care to avoid static electric charges. Keep away from heat/sparks/open flames/hot surfaces. – No smoking.

### **For Non-Emergency Personnel**

**Protective Equipment:** Use appropriate personal protection equipment (PPE).

**Emergency Procedures:** Evacuate unnecessary personnel.

### **For Emergency Personnel**

**Protective Equipment:** Equip cleanup crew with proper protection.

**Emergency Procedures:** Upon arrival at the scene, a first responder is expected to recognize the presence of dangerous goods, protect oneself and the public, secure the area, and call for the assistance of trained personnel as soon as conditions permit.

### **Environmental Precautions**

Prevent entry to sewers and public waters. Notify authorities if liquid enters sewers or public waters.

### **Methods and Material for Containment and Cleaning Up**

**For Containment:** Contain any spills with dikes or absorbents to prevent migration and entry into sewers or streams. Do not take up in combustible material such as: saw dust or cellulosic material.

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**Methods for Cleaning Up:** Clear up spills immediately and dispose of waste safely. Spills should be contained with mechanical barriers. Transfer spilled material to a suitable container for disposal. Contact competent authorities after a spill. Use only non-sparking tools.

### Reference to Other Sections

See Section 8, Exposure Controls and Personal Protection. See Section 13, Disposal Considerations.

## SECTION 7: HANDLING AND STORAGE

### Precautions for Safe Handling

**Additional Hazards When Processed:** Flammable vapors may accumulate in the head space of closed systems. Container may remain hazardous when empty. Handle empty containers with care because residual vapors are flammable. Any proposed use of this product in elevated-temperature processes should be thoroughly evaluated to assure that safe operating conditions are established and maintained.

**Hygiene Measures:** Handle in accordance with good industrial hygiene and safety procedures. Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work.

### Conditions for Safe Storage, Including Any Incompatibilities

**Technical Measures:** Proper grounding procedures to avoid static electricity should be followed. Ground/bond container and receiving equipment. Use explosion-proof electrical, ventilating, lighting equipment. Use only non-sparking tools.

**Storage Conditions:** Store in a dry, cool and well-ventilated place. Keep container closed when not in use. Keep in fireproof place. Keep/Store away from direct sunlight, extremely high or low temperatures, and incompatible materials.

**Incompatible Materials:** Strong acids. Strong bases. Strong oxidizers. Attacks some forms of plastics, rubber, and coatings. Alkaline products. Amines.

### Specific End Use(s)

No use is specified.

## SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

### Control Parameters

For substances listed in section 3 that are not listed here, there are no established Exposure limits from the manufacturer, supplier, importer, or the appropriate advisory agency including: ACGIH (TLV), NIOSH (REL), OSHA (PEL), Canadian provincial governments, or the Mexican government.

Acetone (67-64-1)		
Mexico	OEL TWA (mg/m <sup>3</sup> )	2400 mg/m <sup>3</sup>
Mexico	OEL TWA (ppm)	1000 ppm
Mexico	OEL STEL (mg/m <sup>3</sup> )	3000 mg/m <sup>3</sup>
Mexico	OEL STEL (ppm)	1260 ppm
USA ACGIH	ACGIH TWA (ppm)	500 ppm
USA ACGIH	ACGIH STEL (ppm)	750 ppm
USA ACGIH	ACGIH chemical category	Not Classifiable as a Human Carcinogen
USA OSHA	OSHA PEL (TWA) (mg/m <sup>3</sup> )	2400 mg/m <sup>3</sup>
USA OSHA	OSHA PEL (TWA) (ppm)	1000 ppm
USA NIOSH	NIOSH REL (TWA) (mg/m <sup>3</sup> )	590 mg/m <sup>3</sup>
USA NIOSH	NIOSH REL (TWA) (ppm)	250 ppm
USA IDLH	US IDLH (ppm)	2500 ppm (10% LEL)
Alberta	OEL STEL (mg/m <sup>3</sup> )	1800 mg/m <sup>3</sup>
Alberta	OEL STEL (ppm)	750 ppm
Alberta	OEL TWA (mg/m <sup>3</sup> )	1200 mg/m <sup>3</sup>
Alberta	OEL TWA (ppm)	500 ppm
British Columbia	OEL STEL (ppm)	500 ppm
British Columbia	OEL TWA (ppm)	250 ppm
Manitoba	OEL STEL (ppm)	750 ppm
Manitoba	OEL TWA (ppm)	500 ppm
New Brunswick	OEL STEL (mg/m <sup>3</sup> )	1782 mg/m <sup>3</sup>
New Brunswick	OEL STEL (ppm)	750 ppm
New Brunswick	OEL TWA (mg/m <sup>3</sup> )	1188 mg/m <sup>3</sup>

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<b>New Brunswick</b>	OEL TWA (ppm)	500 ppm
<b>Newfoundland &amp; Labrador</b>	OEL STEL (ppm)	750 ppm
<b>Newfoundland &amp; Labrador</b>	OEL TWA (ppm)	500 ppm
<b>Nova Scotia</b>	OEL STEL (ppm)	750 ppm
<b>Nova Scotia</b>	OEL TWA (ppm)	500 ppm
<b>Nunavut</b>	OEL STEL (mg/m <sup>3</sup> )	2970 mg/m <sup>3</sup>
<b>Nunavut</b>	OEL STEL (ppm)	1250 ppm
<b>Nunavut</b>	OEL TWA (mg/m <sup>3</sup> )	2370 mg/m <sup>3</sup>
<b>Nunavut</b>	OEL TWA (ppm)	1000 ppm
<b>Northwest Territories</b>	OEL STEL (mg/m <sup>3</sup> )	2970 mg/m <sup>3</sup>
<b>Northwest Territories</b>	OEL STEL (ppm)	1250 ppm
<b>Northwest Territories</b>	OEL TWA (mg/m <sup>3</sup> )	2370 mg/m <sup>3</sup>
<b>Northwest Territories</b>	OEL TWA (ppm)	1000 ppm
<b>Ontario</b>	OEL STEL (ppm)	750 ppm
<b>Ontario</b>	OEL TWA (ppm)	500 ppm
<b>Prince Edward Island</b>	OEL STEL (ppm)	750 ppm
<b>Prince Edward Island</b>	OEL TWA (ppm)	500 ppm
<b>Québec</b>	VECD (mg/m <sup>3</sup> )	2380 mg/m <sup>3</sup>
<b>Québec</b>	VECD (ppm)	1000 ppm
<b>Québec</b>	VEMP (mg/m <sup>3</sup> )	1190 mg/m <sup>3</sup>
<b>Québec</b>	VEMP (ppm)	500 ppm
<b>Saskatchewan</b>	OEL STEL (ppm)	750 ppm
<b>Saskatchewan</b>	OEL TWA (ppm)	500 ppm
<b>Yukon</b>	OEL STEL (mg/m <sup>3</sup> )	3000 mg/m <sup>3</sup>
<b>Yukon</b>	OEL STEL (ppm)	1250 ppm
<b>Yukon</b>	OEL TWA (mg/m <sup>3</sup> )	2400 mg/m <sup>3</sup>
<b>Yukon</b>	OEL TWA (ppm)	1000 ppm
<b>n-Heptane (142-82-5)</b>		
<b>Mexico</b>	OEL TWA (mg/m <sup>3</sup> )	1600 mg/m <sup>3</sup>
<b>Mexico</b>	OEL TWA (ppm)	400 ppm
<b>Mexico</b>	OEL STEL (mg/m <sup>3</sup> )	2000 mg/m <sup>3</sup>
<b>Mexico</b>	OEL STEL (ppm)	500 ppm
<b>USA ACGIH</b>	ACGIH TWA (ppm)	400 ppm
<b>USA ACGIH</b>	ACGIH STEL (ppm)	500 ppm
<b>USA OSHA</b>	OSHA PEL (TWA) (mg/m <sup>3</sup> )	2000 mg/m <sup>3</sup>
<b>USA OSHA</b>	OSHA PEL (TWA) (ppm)	500 ppm
<b>USA NIOSH</b>	NIOSH REL (TWA) (mg/m <sup>3</sup> )	350 mg/m <sup>3</sup>
<b>USA NIOSH</b>	NIOSH REL (TWA) (ppm)	85 ppm
<b>USA NIOSH</b>	NIOSH REL (ceiling) (mg/m <sup>3</sup> )	1800 mg/m <sup>3</sup>
<b>USA NIOSH</b>	NIOSH REL (ceiling) (ppm)	440 ppm
<b>USA IDLH</b>	US IDLH (ppm)	750 ppm
<b>Alberta</b>	OEL STEL (mg/m <sup>3</sup> )	2050 mg/m <sup>3</sup>
<b>Alberta</b>	OEL STEL (ppm)	500 ppm
<b>Alberta</b>	OEL TWA (mg/m <sup>3</sup> )	1640 mg/m <sup>3</sup>
<b>Alberta</b>	OEL TWA (ppm)	400 ppm
<b>British Columbia</b>	OEL STEL (ppm)	500 ppm
<b>British Columbia</b>	OEL TWA (ppm)	400 ppm
<b>Manitoba</b>	OEL STEL (ppm)	500 ppm
<b>Manitoba</b>	OEL TWA (ppm)	400 ppm
<b>New Brunswick</b>	OEL STEL (mg/m <sup>3</sup> )	2050 mg/m <sup>3</sup>
<b>New Brunswick</b>	OEL STEL (ppm)	500 ppm

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<b>New Brunswick</b>	OEL TWA (mg/m <sup>3</sup> )	1640 mg/m <sup>3</sup>
<b>New Brunswick</b>	OEL TWA (ppm)	400 ppm
<b>Newfoundland &amp; Labrador</b>	OEL STEL (ppm)	500 ppm
<b>Newfoundland &amp; Labrador</b>	OEL TWA (ppm)	400 ppm
<b>Nova Scotia</b>	OEL STEL (ppm)	500 ppm
<b>Nova Scotia</b>	OEL TWA (ppm)	400 ppm
<b>Nunavut</b>	OEL STEL (mg/m <sup>3</sup> )	2049 mg/m <sup>3</sup>
<b>Nunavut</b>	OEL STEL (ppm)	500 ppm
<b>Nunavut</b>	OEL TWA (mg/m <sup>3</sup> )	1640 mg/m <sup>3</sup>
<b>Nunavut</b>	OEL TWA (ppm)	400 ppm
<b>Northwest Territories</b>	OEL STEL (mg/m <sup>3</sup> )	2049 mg/m <sup>3</sup>
<b>Northwest Territories</b>	OEL STEL (ppm)	500 ppm
<b>Northwest Territories</b>	OEL TWA (mg/m <sup>3</sup> )	1640 mg/m <sup>3</sup>
<b>Northwest Territories</b>	OEL TWA (ppm)	400 ppm
<b>Ontario</b>	OEL STEL (ppm)	500 ppm
<b>Ontario</b>	OEL TWA (ppm)	400 ppm
<b>Prince Edward Island</b>	OEL STEL (ppm)	500 ppm
<b>Prince Edward Island</b>	OEL TWA (ppm)	400 ppm
<b>Québec</b>	VECD (mg/m <sup>3</sup> )	2050 mg/m <sup>3</sup>
<b>Québec</b>	VECD (ppm)	500 ppm
<b>Québec</b>	VEMP (mg/m <sup>3</sup> )	1640 mg/m <sup>3</sup>
<b>Québec</b>	VEMP (ppm)	400 ppm
<b>Saskatchewan</b>	OEL STEL (ppm)	500 ppm
<b>Saskatchewan</b>	OEL TWA (ppm)	400 ppm
<b>Yukon</b>	OEL STEL (mg/m <sup>3</sup> )	2000 mg/m <sup>3</sup>
<b>Yukon</b>	OEL STEL (ppm)	500 ppm
<b>Yukon</b>	OEL TWA (mg/m <sup>3</sup> )	1600 mg/m <sup>3</sup>
<b>Yukon</b>	OEL TWA (ppm)	400 ppm

<b>Toluene (108-88-3)</b>		
<b>Mexico</b>	OEL TWA (mg/m <sup>3</sup> )	188 mg/m <sup>3</sup>
<b>Mexico</b>	OEL TWA (ppm)	50 ppm
<b>USA ACGIH</b>	ACGIH TWA (ppm)	20 ppm
<b>USA ACGIH</b>	ACGIH chemical category	Not Classifiable as a Human Carcinogen
<b>USA OSHA</b>	OSHA PEL (TWA) (ppm)	200 ppm
<b>USA OSHA</b>	OSHA PEL (Ceiling) (ppm)	300 ppm
<b>USA NIOSH</b>	NIOSH REL (TWA) (mg/m <sup>3</sup> )	375 mg/m <sup>3</sup>
<b>USA NIOSH</b>	NIOSH REL (TWA) (ppm)	100 ppm
<b>USA NIOSH</b>	NIOSH REL (STEL) (mg/m <sup>3</sup> )	560 mg/m <sup>3</sup>
<b>USA NIOSH</b>	NIOSH REL (STEL) (ppm)	150 ppm
<b>USA IDLH</b>	US IDLH (ppm)	500 ppm
<b>Alberta</b>	OEL TWA (mg/m <sup>3</sup> )	188 mg/m <sup>3</sup>
<b>Alberta</b>	OEL TWA (ppm)	50 ppm
<b>British Columbia</b>	OEL TWA (ppm)	20 ppm
<b>Manitoba</b>	OEL TWA (ppm)	20 ppm
<b>New Brunswick</b>	OEL TWA (mg/m <sup>3</sup> )	188 mg/m <sup>3</sup>
<b>New Brunswick</b>	OEL TWA (ppm)	50 ppm
<b>Newfoundland &amp; Labrador</b>	OEL TWA (ppm)	20 ppm
<b>Nova Scotia</b>	OEL TWA (ppm)	20 ppm
<b>Nunavut</b>	OEL STEL (mg/m <sup>3</sup> )	560 mg/m <sup>3</sup>
<b>Nunavut</b>	OEL STEL (ppm)	150 ppm
<b>Nunavut</b>	OEL TWA (mg/m <sup>3</sup> )	375 mg/m <sup>3</sup>

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Nunavut	OEL TWA (ppm)	100 ppm
Northwest Territories	OEL STEL (mg/m <sup>3</sup> )	560 mg/m <sup>3</sup>
Northwest Territories	OEL STEL (ppm)	150 ppm
Northwest Territories	OEL TWA (mg/m <sup>3</sup> )	375 mg/m <sup>3</sup>
Northwest Territories	OEL TWA (ppm)	100 ppm
Ontario	OEL TWA (ppm)	20 ppm
Prince Edward Island	OEL TWA (ppm)	20 ppm
Québec	VEMP (mg/m <sup>3</sup> )	188 mg/m <sup>3</sup>
Québec	VEMP (ppm)	50 ppm
Saskatchewan	OEL STEL (ppm)	60 ppm
Saskatchewan	OEL TWA (ppm)	50 ppm
Yukon	OEL STEL (mg/m <sup>3</sup> )	560 mg/m <sup>3</sup>
Yukon	OEL STEL (ppm)	150 ppm
Yukon	OEL TWA (mg/m <sup>3</sup> )	375 mg/m <sup>3</sup>
Yukon	OEL TWA (ppm)	100 ppm
<b>n-Hexane (110-54-3)</b>		
USA ACGIH	ACGIH TWA (ppm)	50 ppm
USA OSHA	OSHA PEL (TWA) (ppm)	500 ppm

### Exposure Controls

**Appropriate Engineering Controls:** Gas detectors should be used when flammable gases/vapors may be released. Proper grounding procedures to avoid static electricity should be followed. Provide exhaust ventilation or other engineering controls to keep the airborne concentrations of vapor or mists below the applicable workplace exposure limits. Use explosion-proof equipment. Emergency eye wash fountains and safety showers should be available in the immediate vicinity of any potential exposure. Ensure all national/local regulations are observed.

**Personal Protective Equipment:** Protective goggles. Gloves. Protective clothing. Insufficient ventilation: wear respiratory protection.



**Materials for Protective Clothing:** Chemically resistant materials and fabrics.

**Hand Protection:** Wear chemically resistant protective gloves.

**Eye Protection:** Chemical safety goggles.

**Skin and Body Protection:** Wear suitable protective clothing.

**Respiratory Protection:** If exposure limits are exceeded or irritation is experienced, approved respiratory protection should be worn.

**Environmental Exposure Controls:** Do not allow the product to be released into the environment.

**Consumer Exposure Controls:** Do not eat, drink, or smoke during use

## SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

### Information on Basic Physical and Chemical Properties

Physical State	: Liquid
Appearance	: Light amber, green, or red
Odor	: Mild aromatic odor
Odor Threshold	: Not available
pH	: Not applicable
Evaporation Rate	: 11.6, based on Acetone [Ref Std: n-Butyl acetate = 1.0]
Melting Point	: Not available
Freezing Point	: Not available
Boiling Point	: 55.6 - 71 °C (132.08 - 159.8 °F)
Flash Point	: -25 - -18 °C (-13.0 - -0.4 °F) Tag Closed Cup
Auto-ignition Temperature	: >203 °C (397 °F)
Decomposition Temperature	: Not available

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<b>Flammability (solid, gas)</b>	: Not available
<b>Lower Flammable Limit</b>	: 1.0 %
<b>Upper Flammable Limit</b>	: 13.0 %
<b>Vapor Pressure</b>	: <=184 mm Hg @ 20 °C (68 °F)
<b>Relative Vapor Density at 20 °C</b>	: >= 2.0 [Ref Std: Air = 1.0]
<b>Relative Density</b>	: 0.80 g/mL
<b>Specific Gravity</b>	: 0.80 @ 20 °C (68 °F)
<b>Solubility</b>	: Not soluble in water
<b>Partition Coefficient: N-Octanol/Water</b>	: Not available
<b>Viscosity</b>	: 180 – 220 centipoise @ 20 °C (68 °F)
<b>Solids Content</b>	: 18.5 ± 1%
<b>Explosion Data – Sensitivity to Mechanical Impact</b>	: Not expected to present an explosion hazard due to mechanical impact.
<b>Explosion Data – Sensitivity to Static Discharge</b>	: Yes, in certain circumstances product can ignite due to static discharge.
<b>VOC Content (SCAQMD Rule 1168)</b>	: 576 g/L (4.80 lbs/gal)
<b>VHAP Content</b>	: 0.78 lbs/lb solids

## SECTION 10: STABILITY AND REACTIVITY

**Reactivity:** Vapors are heavier than air and may travel considerable distance to an ignition source and flash back to source of vapors. Reacts with (strong) oxidizers: (increased) risk of fire.

**Chemical Stability:** Stable under recommended handling and storage conditions (see section 7).

**Possibility of Hazardous Reactions:** Hazardous polymerization will not occur.

**Conditions to Avoid:** Direct sunlight. Extremely high or low temperatures. Ignition sources. Air contact. Incompatible materials.

**Incompatible Materials:** Strong acids. Strong bases. Strong oxidizers. Attacks some forms of plastics, rubber, and coatings. Alkaline substances. Amines.

**Hazardous Decomposition Products:** Decomposition may produce fumes, smoke, oxides of carbon and hydrocarbons. Highly toxic and corrosive gases are released. Hydrogen cyanide.

## SECTION 11: TOXICOLOGICAL INFORMATION

### Information on Toxicological Effects - Product

**Acute Toxicity:** Not classified

**LD50 and LC50 Data:** Not available

**Skin Corrosion/Irritation:** Causes skin irritation.

**Serious Eye Damage/Irritation:** Causes serious eye irritation.

**Respiratory or Skin Sensitization:** May cause an allergic skin reaction.

**Germ Cell Mutagenicity:** May cause genetic defects.

**Teratogenicity:** Not classified

**Carcinogenicity:** Not classified

**Specific Target Organ Toxicity (Repeated Exposure):** May cause damage to organs (central nervous system) through prolonged or repeated exposure.

**Reproductive Toxicity:** Suspected of damaging fertility or the unborn child.

**Specific Target Organ Toxicity (Single Exposure):** May cause drowsiness or dizziness.

**Aspiration Hazard:** May be fatal if swallowed and enters airways.

**Symptoms/Injuries After Inhalation:** May cause drowsiness or dizziness. Peripheral neurotoxicity has been reported in connection with over exposure to n-hexane. Prolonged exposure over a period of weeks or months to levels well above the TLV may cause neurotoxic disease, with symptoms including weakness and lack of sensation in fingers, hands, arms, feet and legs. Methyl ethyl ketone has been reported to potentiate the neurotoxic effects caused by either n-hexane or methyl-n-butyl ketone. Methyl ethyl ketone by itself does not cause a peripheral neuropathy. MEK may also potentiate the liver and kidney toxicity of haloalkane solvents.

**Symptoms/Injuries After Skin Contact:** Causes skin irritation. Symptoms may include: Redness, pain, swelling, itching, burning, dryness, and dermatitis.

**Symptoms/Injuries After Eye Contact:** Causes serious eye irritation. Symptoms may include: Redness, pain, swelling, itching, burning, tearing, and blurred vision.

**Symptoms/Injuries After Ingestion:** May be fatal if swallowed and enters airways.



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**Chronic Symptoms:** May cause an allergic skin reaction. Suspected of damaging fertility or the unborn child. Suspected of causing genetic defects. May cause damage to organs through prolonged or repeated exposure.

### Information on Toxicological Effects - Ingredient(s)

#### LD50 and LC50 Data:

<b>Acetone (67-64-1)</b>	
LD50 Oral Rat	5800 mg/kg
LD50 Dermal Rabbit	15688 mg/kg
LC50 Inhalation Rat	44 g/m <sup>3</sup>
<b>n-Heptane (142-82-5)</b>	
LD50 Oral Rat	> 5000 mg/kg
LD50 Dermal Rabbit	3000 mg/kg
LC50 Inhalation Rat	103 g/m <sup>3</sup> (Exposure time: 4 h)
<b>Naphtha, petroleum, hydrotreated light (64742-49-0)</b>	
LD50 Oral Rat	> 5000 mg/kg
LD50 Dermal Rabbit	> 3160 mg/kg
LC50 Inhalation Rat	73680 ppm/4h
<b>Toluene (108-88-3)</b>	
LD50 Oral Rat	5580 mg/kg
LD50 Dermal Rabbit	12000 mg/kg
ATE US (vapors)	25.70 mg/l/4h
<b>Phenol-formaldehyde polymer (9003-35-4)</b>	
LD50 Oral Rat	> 5 g/kg
LD50 Dermal Rabbit	> 2 g/kg
<b>Acetone (67-64-1)</b>	
OSHA Specifically Regulated Carcinogen List	In OSHA Specifically Regulated Carcinogen list.
<b>1,3-Butadiene, 2-chloro-, homopolymer (9010-98-4)</b>	
IARC Group	3

## SECTION 12: ECOLOGICAL INFORMATION

### Toxicity

**Ecology - General:** Very toxic to aquatic life with long lasting effects. Toxic to aquatic life.

<b>Acetone (67-64-1)</b>	
LC50 Fish 1	4144.846 mg/l (Exposure time: 96 h - Species: Oncorhynchus mykiss)
EC50 Daphnia 1	1679.66 mg/l (Exposure time: 48 h - Species: Daphnia magna [Static])
LC 50 Fish 2	6210 (6210 - 8120) mg/l (Exposure time: 96 h - Species: Pimephales promelas [static])
EC50 Daphnia 2	12600 (12600 - 12700) mg/l (Exposure time: 48 h - Species: Daphnia magna)
<b>n-Heptane (142-82-5)</b>	
LC50 Fish 1	375.0 mg/l (Exposure time: 96 h - Species: Cichlid fish)
<b>Naphtha, petroleum, hydrotreated light (64742-49-0)</b>	
LC50 Fish 1	8.2 mg/l (Exposure time: 96 h - Species: Pimephales promelas [static])
<b>Toluene (108-88-3)</b>	
LC50 Fish 1	15.22 (15.22 - 19.05) mg/l (Exposure time: 96 h - Species: Pimephales promelas [flow-through])
EC50 Daphnia 1	5.46 (5.46 - 9.83) mg/l (Exposure time: 48 h - Species: Daphnia magna [Static])
LC 50 Fish 2	12.6 mg/l (Exposure time: 96 h - Species: Pimephales promelas [static])
EC50 Daphnia 2	11.5 mg/l (Exposure time: 48 h - Species: Daphnia magna)
NOEC chronic crustacea	0.74 mg/l (Ceriodaphnia dubia)

### Persistence and Degradability

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<b>Acetone (67-64-1)</b>	
<b>Persistence and Degradability</b>	Readily biodegradable in water.

### Bioaccumulative Potential

<b>Acetone (67-64-1)</b>	
<b>BCF Fish 1</b>	0.69
<b>Log Kow</b>	-0.24
<b>n-Heptane (142-82-5)</b>	
<b>Log Pow</b>	4.66
<b>Toluene (108-88-3)</b>	
<b>Log Pow</b>	2.65

**Mobility in Soil** Not available

### Other Adverse Effects

**Other Information:** Avoid release to the environment.

## SECTION 13: DISPOSAL CONSIDERATIONS

**Sewage Disposal Recommendations:** This material is hazardous to the aquatic environment. Keep out of sewers and waterways.

**Waste Disposal Recommendations:** Dispose of waste material in accordance with all local, regional, national, provincial, territorial and international regulations.

**Additional Information:** Handle empty containers with care because residual product is flammable.

**Ecology – Waste Materials:** Avoid release to the environment.

## SECTION 14: TRANSPORT INFORMATION

### In Accordance with DOT

**Proper Shipping Name** : ADHESIVES  
**Hazard Class** : 3  
**Identification Number** : UN1133  
**Label Codes** : 3  
**Packing Group** : II  
**ERG Number** : 128



### In Accordance with IATA

**Proper Shipping Name** : ADHESIVES  
**Packing Group** : II  
**Identification Number** : UN1133  
**Hazard Class** : 3  
**Label Codes** : 3  
**ERG Code (IATA)** : 3H



### In Accordance with TDG

**Proper Shipping Name** : ADHESIVES  
**Packing Group** : II  
**Hazard Class** : 3  
**Identification Number** : UN1133  
**Label Codes** : 3  
**Marine Pollutant (TDG)** : Marine pollutant



## SECTION 15: REGULATORY INFORMATION

### US Federal Regulations

<b>SARA Section 311/312 Hazard Classes</b>	Immediate (acute) health hazard Delayed (chronic) health hazard Fire hazard
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<b>Acetone (67-64-1)</b>
Listed on the United States TSCA (Toxic Substances Control Act) inventory

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<b>EPA TSCA Regulatory Flag</b>	T - T - indicates a substance that is the subject of a Section 4 test rule under TSCA.
<b>Heptane, branched, cyclic and linear (426260-76-6)</b>	
Listed on the United States TSCA (Toxic Substances Control Act) inventory	
<b>n-Heptane (142-82-5)</b>	
Listed on the United States TSCA (Toxic Substances Control Act) inventory	
<b>EPA TSCA Regulatory Flag</b>	T - T - indicates a substance that is the subject of a Section 4 test rule under TSCA.
<b>Naphtha, petroleum, hydrotreated light (64742-49-0)</b>	
Listed on the United States TSCA (Toxic Substances Control Act) inventory	
<b>Toluene (108-88-3)</b>	
Listed on the United States TSCA (Toxic Substances Control Act) inventory	
Listed on United States SARA Section 313	
<b>RQ (Reportable Quantity, Section 304 of EPA's List of Lists):</b>	1000 lb
<b>SARA Section 313 - Emission Reporting</b>	1.0 %
<b>Phenol-formaldehyde polymer (9003-35-4)</b>	
Listed on the United States TSCA (Toxic Substances Control Act) inventory	

### US State Regulations

**Proposition 65** –  **WARNING:** Cancer and Reproductive Harm - [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov).

<b>Acetone (67-64-1)</b>
U.S. - Massachusetts - Right To Know List
U.S. - New Jersey - Right to Know Hazardous Substance List
U.S. - Pennsylvania - RTK (Right to Know) - Environmental Hazard List
U.S. - Pennsylvania - RTK (Right to Know) List
<b>n-Heptane (142-82-5)</b>
U.S. - Massachusetts - Right To Know List
U.S. - New Jersey - Right to Know Hazardous Substance List
U.S. - Pennsylvania - RTK (Right to Know) List
<b>Toluene (108-88-3)</b>
U.S. - Massachusetts - Right To Know List
U.S. - New Jersey - Right to Know Hazardous Substance List
U.S. - Pennsylvania - RTK (Right to Know) - Environmental Hazard List
U.S. - Pennsylvania - RTK (Right to Know) List

### Canadian Regulations

<b>Acetone (67-64-1)</b>
Listed on the Canadian DSL (Domestic Substances List)
Listed on the Canadian IDL (Ingredient Disclosure List)
IDL Concentration 1 %
<b>Heptane, branched, cyclic and linear (426260-76-6)</b>
Listed on the Canadian DSL (Domestic Substances List)
<b>n-Heptane (142-82-5)</b>
Listed on the Canadian DSL (Domestic Substances List)
Listed on the Canadian IDL (Ingredient Disclosure List)
IDL Concentration 1 %
<b>Naphtha, petroleum, hydrotreated light (64742-49-0)</b>
Listed on the Canadian DSL (Domestic Substances List)

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### Toluene (108-88-3)

Listed on the Canadian DSL (Domestic Substances List)

Listed on the Canadian IDL (Ingredient Disclosure List)

IDL Concentration 1 %

### Phenol-formaldehyde polymer (9003-35-4)

Listed on the Canadian DSL (Domestic Substances List)

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations (CPR) and the SDS contains all of the information required by CPR.

## SECTION 16: OTHER INFORMATION, INCLUDING DATE OF PREPARATION OR LAST REVISION

**Revision Date** : 06/13/2018

**Other Information** : This document has been prepared in accordance with the SDS requirements of the OSHA Hazard Communication Standard 29 CFR 1910.1200.

### GHS Full Text Phrases:

H225	Highly flammable liquid and vapor
H304	May be fatal if swallowed and enters airways
H315	Causes skin irritation
H317	May cause an allergic skin reaction
H319	Causes serious eye irritation
H336	May cause drowsiness or dizziness
H340	May cause genetic defects
H361	Suspected of damaging fertility or the unborn child
H373	May cause damage to organs through prolonged or repeated exposure

*This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.*

North America GHS US 2012 & WHMIS 2015