SECTION 1: IDENTIFICATION

Product Identifier

Product Form: Mixture

Product Name: HELMIFIX

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.
99 Shorncliffe Rd
Toronto, Ontario, M8Z 5K7
877.823.2624

11110 Airport Road
Olive Branch, MS 38654
Phone: 877.823.2624
www.helmitin.com

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) :

GHS02 GHS07 GHS08

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 through prolonged or repeated exposure.

Precautionary Statements (GHS-US) : P210 - Keep away from extremely high or low temperatures, ignition sources, and incompatible materials. - No smoking.
P233 - Keep container tightly closed.
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 protective gloves, protective clothing, and 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.
P314 - Get medical advice/attention if you feel unwell.
P331 - Do NOT induce vomiting.

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	7 - 13
Toluene	(CAS No) 108-88-3	15 - 40
Ethyl acetate	(CAS No) 141-78-6	5 - 10
Naphtha, petroleum, hydrotreated light*	(CAS No) 64742-49-0	15 - 40
Methyl ethyl ketone	(CAS No) 78-93-3	5 - 10
Heptane, branched, cyclic and linear	(CAS No) 426260-76-6	15 - 40
n-Heptane	(CAS No) 142-82-5	7 - 13
Phenol-formaldehyde polymer	(CAS No) 9003-35-4	5 - 10

***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 an allergic skin reaction. Suspected of damaging fertility. Suspected of damaging the unborn child. May cause drowsiness or dizziness. May cause damage to organs through prolonged or repeated exposure. May be fatal if swallowed and enters airways. May cause genetic defects.

Inhalation: May cause drowsiness or dizziness. May cause respiratory irritation. 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. May cause an allergic skin reaction.

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 damage to organs through prolonged or repeated exposure. Suspected of damaging fertility or the unborn child. May cause genetic defects.

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_2), 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: Reacts with (strong) oxidizers: (increased) risk of fire. Vapors are heavier than air and may travel considerable distance to an ignition source and flash back to source of vapors.

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.

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

Hazardous Combustion Products: Burning can produce carbon monoxide, carbon dioxide, chloride and hydrocarbons. Carbon monoxide is highly toxic if inhaled; carbon dioxide in sufficient concentrations can act as an asphyxiant. Acute overexposure to the products of combustion may result in irritation of the respiratory tract. . Formaldehyde.

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 (vapor, mist, spray). 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: Stop leak if safe to do so. Eliminate ignition sources. Ventilate area.

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.

Methods for Cleaning Up: Clean 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 Heading 8. Exposure controls and personal protection. For further information refer to section 13.

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.

Precautions for Safe Handling: Use only non-sparking tools. Keep away from heat, sparks, open flames, hot surfaces. – No smoking.

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.

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)		
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/m³)	2400 mg/m³
USA OSHA	OSHA PEL (TWA) (ppm)	1000 ppm
USA NIOSH	NIOSH REL (TWA) (mg/m³)	590 mg/m³
USA NIOSH	NIOSH REL (TWA) (ppm)	250 ppm
USA IDLH	US IDLH (ppm)	2500 ppm (10% LEL)
Alberta	OEL STEL (mg/m³)	1800 mg/m³
Alberta	OEL STEL (ppm)	750 ppm
Alberta	OEL TWA (mg/m³)	1200 mg/m³
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/m³)	1782 mg/m³
New Brunswick	OEL STEL (ppm)	750 ppm
New Brunswick	OEL TWA (mg/m³)	1188 mg/m³
New Brunswick	OEL TWA (ppm)	500 ppm
Newfoundland & Labrador	OEL STEL (ppm)	750 ppm
Newfoundland & Labrador	OEL TWA (ppm)	500 ppm
Nova Scotia	OEL STEL (ppm)	750 ppm
Nova Scotia	OEL TWA (ppm)	500 ppm
Nunavut	OEL STEL (mg/m³)	2970 mg/m³

Nunavut	OEL STEL (ppm)	1250 ppm
Nunavut	OEL TWA (mg/m³)	2370 mg/m³
Nunavut	OEL TWA (ppm)	1000 ppm
Northwest Territories	OEL STEL (mg/m³)	2970 mg/m³
Northwest Territories	OEL STEL (ppm)	1250 ppm
Northwest Territories	OEL TWA (mg/m³)	2370 mg/m³
Northwest Territories	OEL TWA (ppm)	1000 ppm
Ontario	OEL STEL (ppm)	750 ppm
Ontario	OEL TWA (ppm)	500 ppm
Prince Edward Island	OEL STEL (ppm)	750 ppm
Prince Edward Island	OEL TWA (ppm)	500 ppm
Québec	VECD (mg/m³)	2380 mg/m³
Québec	VECD (ppm)	1000 ppm
Québec	VEMP (mg/m³)	1190 mg/m³
Québec	VEMP (ppm)	500 ppm
Saskatchewan	OEL STEL (ppm)	750 ppm
Saskatchewan	OEL TWA (ppm)	500 ppm
Yukon	OEL STEL (mg/m³)	3000 mg/m³
Yukon	OEL STEL (ppm)	1250 ppm
Yukon	OEL TWA (mg/m³)	2400 mg/m³
Yukon	OEL TWA (ppm)	1000 ppm

Toluene (108-88-3)		
USA ACGIH	ACGIH TWA (ppm)	20 ppm
USA ACGIH	ACGIH chemical category	Not Classifiable as a Human Carcinogen
USA OSHA	OSHA PEL (TWA) (ppm)	200 ppm
USA OSHA	OSHA PEL (Ceiling) (ppm)	300 ppm
USA NIOSH	NIOSH REL (TWA) (mg/m³)	375 mg/m³
USA NIOSH	NIOSH REL (TWA) (ppm)	100 ppm
USA NIOSH	NIOSH REL (STEL) (mg/m³)	560 mg/m³
USA NIOSH	NIOSH REL (STEL) (ppm)	150 ppm
USA IDLH	US IDLH (ppm)	500 ppm
Alberta	OEL TWA (mg/m³)	188 mg/m³
Alberta	OEL TWA (ppm)	50 ppm
British Columbia	OEL TWA (ppm)	20 ppm
Manitoba	OEL TWA (ppm)	20 ppm
New Brunswick	OEL TWA (mg/m³)	188 mg/m³
New Brunswick	OEL TWA (ppm)	50 ppm
Newfoundland & Labrador	OEL TWA (ppm)	20 ppm
Nova Scotia	OEL TWA (ppm)	20 ppm
Nunavut	OEL STEL (mg/m³)	560 mg/m³
Nunavut	OEL STEL (ppm)	150 ppm
Nunavut	OEL TWA (mg/m³)	375 mg/m³
Nunavut	OEL TWA (ppm)	100 ppm
Northwest Territories	OEL STEL (mg/m³)	560 mg/m³
Northwest Territories	OEL STEL (ppm)	150 ppm
Northwest Territories	OEL TWA (mg/m³)	375 mg/m³
Northwest Territories	OEL TWA (ppm)	100 ppm
Ontario	OEL TWA (ppm)	20 ppm
Prince Edward Island	OEL TWA (ppm)	20 ppm
Québec	VEMP (mg/m³)	188 mg/m³
Québec	VEMP (ppm)	50 ppm

Saskatchewan	OEL STEL (ppm)	60 ppm
Saskatchewan	OEL TWA (ppm)	50 ppm
Yukon	OEL STEL (mg/m³)	560 mg/m³
Yukon	OEL STEL (ppm)	150 ppm
Yukon	OEL TWA (mg/m³)	375 mg/m³
Yukon	OEL TWA (ppm)	100 ppm
Ethyl acetate (141-78-6)		
USA ACGIH	ACGIH TWA (ppm)	400 ppm
USA OSHA	OSHA PEL (TWA) (mg/m³)	1400 mg/m³
USA OSHA	OSHA PEL (TWA) (ppm)	400 ppm
USA NIOSH	NIOSH REL (TWA) (mg/m³)	1400 mg/m³
USA NIOSH	NIOSH REL (TWA) (ppm)	400 ppm
USA IDLH	US IDLH (ppm)	2000 ppm (10% LEL)
Alberta	OEL TWA (mg/m³)	1440 mg/m³
Alberta	OEL TWA (ppm)	400 ppm
British Columbia	OEL TWA (ppm)	150 ppm
Manitoba	OEL TWA (ppm)	400 ppm
New Brunswick	OEL TWA (mg/m³)	1440 mg/m³
New Brunswick	OEL TWA (ppm)	400 ppm
Newfoundland & Labrador	OEL TWA (ppm)	400 ppm
Nova Scotia	OEL TWA (ppm)	400 ppm
Nunavut	OEL STEL (mg/m³)	1801 mg/m³
Nunavut	OEL STEL (ppm)	500 ppm
Nunavut	OEL TWA (mg/m³)	1441 mg/m³
Nunavut	OEL TWA (ppm)	400 ppm
Northwest Territories	OEL STEL (mg/m³)	1801 mg/m³
Northwest Territories	OEL STEL (ppm)	500 ppm
Northwest Territories	OEL TWA (mg/m³)	1441 mg/m³
Northwest Territories	OEL TWA (ppm)	400 ppm
Ontario	OEL TWA (ppm)	400 ppm
Prince Edward Island	OEL TWA (ppm)	400 ppm
Québec	VEMP (mg/m³)	1440 mg/m³
Québec	VEMP (ppm)	400 ppm
Saskatchewan	OEL STEL (ppm)	500 ppm
Saskatchewan	OEL TWA (ppm)	400 ppm
Yukon	OEL STEL (mg/m³)	1400 mg/m³
Yukon	OEL STEL (ppm)	400 ppm
Yukon	OEL TWA (mg/m³)	1400 mg/m³
Yukon	OEL TWA (ppm)	400 ppm
n-Heptane (142-82-5)		
USA ACGIH	ACGIH TWA (ppm)	400 ppm
USA ACGIH	ACGIH STEL (ppm)	500 ppm
USA OSHA	OSHA PEL (TWA) (mg/m³)	2000 mg/m³
USA OSHA	OSHA PEL (TWA) (ppm)	500 ppm
USA NIOSH	NIOSH REL (TWA) (mg/m³)	350 mg/m³
USA NIOSH	NIOSH REL (TWA) (ppm)	85 ppm
USA NIOSH	NIOSH REL (ceiling) (mg/m³)	1800 mg/m³
USA NIOSH	NIOSH REL (ceiling) (ppm)	440 ppm
USA IDLH	US IDLH (ppm)	750 ppm
Alberta	OEL STEL (mg/m³)	2050 mg/m³
Alberta	OEL STEL (ppm)	500 ppm

Alberta	OEL TWA (mg/m³)	1640 mg/m³
Alberta	OEL TWA (ppm)	400 ppm
British Columbia	OEL STEL (ppm)	500 ppm
British Columbia	OEL TWA (ppm)	400 ppm
Manitoba	OEL STEL (ppm)	500 ppm
Manitoba	OEL TWA (ppm)	400 ppm
New Brunswick	OEL STEL (mg/m³)	2050 mg/m³
New Brunswick	OEL STEL (ppm)	500 ppm
New Brunswick	OEL TWA (mg/m³)	1640 mg/m³
New Brunswick	OEL TWA (ppm)	400 ppm
Newfoundland & Labrador	OEL STEL (ppm)	500 ppm
Newfoundland & Labrador	OEL TWA (ppm)	400 ppm
Nova Scotia	OEL STEL (ppm)	500 ppm
Nova Scotia	OEL TWA (ppm)	400 ppm
Nunavut	OEL STEL (mg/m³)	2049 mg/m³
Nunavut	OEL STEL (ppm)	500 ppm
Nunavut	OEL TWA (mg/m³)	1640 mg/m³
Nunavut	OEL TWA (ppm)	400 ppm
Northwest Territories	OEL STEL (mg/m³)	2049 mg/m³
Northwest Territories	OEL STEL (ppm)	500 ppm
Northwest Territories	OEL TWA (mg/m³)	1640 mg/m³
Northwest Territories	OEL TWA (ppm)	400 ppm
Ontario	OEL STEL (ppm)	500 ppm
Ontario	OEL TWA (ppm)	400 ppm
Prince Edward Island	OEL STEL (ppm)	500 ppm
Prince Edward Island	OEL TWA (ppm)	400 ppm
Québec	VECD (mg/m³)	2050 mg/m³
Québec	VECD (ppm)	500 ppm
Québec	VEMP (mg/m³)	1640 mg/m³
Québec	VEMP (ppm)	400 ppm
Saskatchewan	OEL STEL (ppm)	500 ppm
Saskatchewan	OEL TWA (ppm)	400 ppm
Yukon	OEL STEL (mg/m³)	2000 mg/m³
Yukon	OEL STEL (ppm)	500 ppm
Yukon	OEL TWA (mg/m³)	1600 mg/m³
Yukon	OEL TWA (ppm)	400 ppm

Methyl ethyl ketone (78-93-3)		
USA ACGIH	ACGIH TWA (ppm)	200 ppm
USA ACGIH	ACGIH STEL (ppm)	300 ppm
USA OSHA	OSHA PEL (TWA) (mg/m³)	590 mg/m³
USA OSHA	OSHA PEL (TWA) (ppm)	200 ppm
USA NIOSH	NIOSH REL (TWA) (mg/m³)	590 mg/m³
USA NIOSH	NIOSH REL (TWA) (ppm)	200 ppm
USA NIOSH	NIOSH REL (STEL) (mg/m³)	885 mg/m³
USA NIOSH	NIOSH REL (STEL) (ppm)	300 ppm
USA IDLH	US IDLH (ppm)	3000 ppm
Alberta	OEL STEL (mg/m³)	885 mg/m³
Alberta	OEL STEL (ppm)	300 ppm
Alberta	OEL TWA (mg/m³)	590 mg/m³
Alberta	OEL TWA (ppm)	200 ppm
British Columbia	OEL STEL (ppm)	100 ppm

British Columbia	OEL TWA (ppm)	50 ppm
Manitoba	OEL STEL (ppm)	300 ppm
Manitoba	OEL TWA (ppm)	200 ppm
New Brunswick	OEL STEL (mg/m³)	885 mg/m³
New Brunswick	OEL STEL (ppm)	300 ppm
New Brunswick	OEL TWA (mg/m³)	590 mg/m³
New Brunswick	OEL TWA (ppm)	200 ppm
Newfoundland & Labrador	OEL STEL (ppm)	300 ppm
Newfoundland & Labrador	OEL TWA (ppm)	200 ppm
Nova Scotia	OEL STEL (ppm)	300 ppm
Nova Scotia	OEL TWA (ppm)	200 ppm
Nunavut	OEL STEL (mg/m³)	885 mg/m³
Nunavut	OEL STEL (ppm)	300 ppm
Nunavut	OEL TWA (mg/m³)	590 mg/m³
Nunavut	OEL TWA (ppm)	200 ppm
Northwest Territories	OEL STEL (mg/m³)	885 mg/m³
Northwest Territories	OEL STEL (ppm)	300 ppm
Northwest Territories	OEL TWA (mg/m³)	590 mg/m³
Northwest Territories	OEL TWA (ppm)	200 ppm
Ontario	OEL STEL (ppm)	300 ppm
Ontario	OEL TWA (ppm)	200 ppm
Prince Edward Island	OEL STEL (ppm)	300 ppm
Prince Edward Island	OEL TWA (ppm)	200 ppm
Québec	VECD (mg/m³)	300 mg/m³
Québec	VECD (ppm)	100 ppm
Québec	VEMP (mg/m³)	150 mg/m³
Québec	VEMP (ppm)	50 ppm
Saskatchewan	OEL STEL (ppm)	300 ppm
Saskatchewan	OEL TWA (ppm)	200 ppm
Yukon	OEL STEL (mg/m³)	740 mg/m³
Yukon	OEL STEL (ppm)	250 ppm
Yukon	OEL TWA (mg/m³)	590 mg/m³
Yukon	OEL TWA (ppm)	200 ppm

n-Hexane (110-54-3)		
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. Use explosion-proof equipment. Ensure adequate ventilation, especially in confined areas. 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: Use a NIOSH-approved respirator or self-contained breathing apparatus whenever exposure may exceed established Occupational Exposure Limits.

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
Odor	:	Mild aromatic
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	:	53 - 78 °C (127.4 - 172.4 °F)
Flash Point	:	< -30 °C (-22 °F) (Tag Closed Cup)
Auto-ignition Temperature	:	>203 °C (397 °F)
Decomposition Temperature	:	Not available
Flammability (solid, gas)	:	Not available
Lower Flammable Limit	:	1.0 %
Upper Flammable Limit	:	13.0 %
Vapor Pressure	:	<=184 mm Hg @ 20 °C (68 °F)
Relative Vapor Density at 20 °C	:	>= 2.0 [*Ref Std: Air = 1.0*]
Relative Density	:	0.82 g/mL
Specific Gravity	:	0.82 @ 20 °C (68 °F)
Solubility	:	Not soluble in water
Partition Coefficient: N-Octanol/Water	:	Not available
Viscosity	:	1,450 – 1,750 centipoise @ 20 °C (68 °F)
Solids Content	:	21 ± 2%
Explosion Data – Sensitivity to Mechanical Impact	:	Not expected to present an explosion hazard due to mechanical impact.
Explosion Data – Sensitivity to Static Discharge	:	Yes, in certain circumstances product can ignite due to static discharge.
VOC Content (SCAQMD Rule 1168)	:	636 g/L (5.30 lbs/gal)
VHAP Content	:	1.39 lbs/lb solids

SECTION 10: STABILITY AND REACTIVITY

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

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. Incompatible materials.

Incompatible Materials: Strong acids. Strong bases. Strong oxidizers.

Hazardous Decomposition Products: Carbon oxides (CO, CO_2). Will decompose above 150 °C (>300° F) releasing formaldehyde vapors. Formaldehyde is a potential carcinogen and can act as a potential skin and respiratory sensitizer. Formaldehyde can also cause respiratory and eye irritation. . Decomposition may produce fumes, smoke, oxides of carbon and hydrocarbons.

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 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. May cause respiratory irritation. 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. May cause an allergic skin reaction.

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.

Chronic Symptoms: May cause damage to organs through prolonged or repeated exposure. Suspected of damaging fertility or the unborn child. May cause genetic defects.

Information on Toxicological Effects - Ingredient(s)

LD50 and LC50 Data:

Acetone (67-64-1)	
LD50 Oral Rat	5800 mg/kg
LD50 Dermal Rabbit	15688 mg/kg
LC50 Inhalation Rat	44 g/m³

Toluene (108-88-3)	
LD50 Oral Rat	5580 mg/kg
LD50 Dermal Rabbit	12000 mg/kg
ATE US (vapors)	25.70 mg/l/4h

Ethyl acetate (141-78-6)	
LD50 Oral Rat	5620 mg/kg
LD50 Dermal Rabbit	> 18000 mg/kg

n-Heptane (142-82-5)	
LD50 Oral Rat	> 5000 mg/kg
LD50 Dermal Rabbit	3000 mg/kg
LC50 Inhalation Rat	103 g/m³ (Exposure time: 4 h)

Naphtha, petroleum, hydrotreated light (64742-49-0)	
LD50 Oral Rat	> 5000 mg/kg
LD50 Dermal Rabbit	> 3160 mg/kg
LC50 Inhalation Rat	73680 ppm/4h

Phenol-formaldehyde polymer (9003-35-4)	
LD50 Oral Rat	> 5 g/kg
LD50 Dermal Rabbit	> 2 g/kg

Methyl ethyl ketone (78-93-3)	
LD50 Oral Rat	2054 mg/kg
LD50 Dermal Rat	> 10 ml/kg
LD50 Dermal Rabbit	5000 mg/kg

LC50 Inhalation Rat	11700 ppm/4h

Acetone (67-64-1)	
OSHA Specifically Regulated Carcinogen List	In OSHA Specifically Regulated Carcinogen list.

Toluene (108-88-3)	
IARC Group	3

SECTION 12: ECOLOGICAL INFORMATION

Toxicity

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

Acetone (67-64-1)	
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)

Toluene (108-88-3)	
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)

Ethyl acetate (141-78-6)	
LC50 Fish 1	220 - 250 mg/l (Exposure time: 96 h - Species: Pimephales promelas [flow-through])
EC50 Daphnia 1	560 mg/l (Exposure time: 48 h - Species: Daphnia magna [Static])
LC 50 Fish 2	484 mg/l (Exposure time: 96 h - Species: Oncorhynchus mykiss [flow-through])

n-Heptane (142-82-5)	
LC50 Fish 1	375.0 mg/l (Exposure time: 96 h - Species: Cichlid fish)

Naphtha, petroleum, hydrotreated light (64742-49-0)	
LC50 Fish 1	8.2 mg/l (Exposure time: 96 h - Species: PimephaJes promelas [static])

Methyl ethyl ketone (78-93-3)	
LC50 Fish 1	3130 (3130 - 3320) mg/l (Exposure time: 96 h - Species: Pimephales promelas [flow-through])
EC50 Daphnia 1	520 mg/l (Exposure time: 48 h - Species: Daphnia magna)
EC50 Daphnia 2	5091 mg/l (Exposure time: 48 h - Species: Daphnia magna)

Persistence and Degradability

Acetone (67-64-1)	
Persistence and Degradability	Readily biodegradable in water.

Bioaccumulative Potential

Acetone (67-64-1)	
BCF Fish 1	0.69
Log Kow	-0.24

Toluene (108-88-3)	
Log Pow	2.65

Ethyl acetate (141-78-6)	
BCF Fish 1	30
Log Pow	0.6

n-Heptane (142-82-5)	
Log Pow	4.66

Methyl ethyl ketone (78-93-3)	
Log Pow	0.29

Mobility in Soil Not available

Other Adverse Effects

Other Information: Avoid release to the environment.

SECTION 13: DISPOSAL CONSIDERATIONS

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

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 IMDG

Proper Shipping Name : ADHESIVES
Hazard Class : 3
Identification Number : UN1133
Packing Group : II
Label Codes : 3
Marine pollutant : Marine pollutant

In Accordance with IATA

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

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

SARA Section 311/312 Hazard Classes	Immediate (acute) health hazard Delayed (chronic) health hazard Fire hazard

Acetone (67-64-1)	
Listed on the United States TSCA (Toxic Substances Control Act) inventory	
EPA TSCA Regulatory Flag	T - T - indicates a substance that is the subject of a Section 4 test rule under TSCA.

Toluene (108-88-3)	
Listed on the United States TSCA (Toxic Substances Control Act) inventory Listed on United States SARA Section 313	
RQ (Reportable Quantity, Section 304 of EPA's List of Lists):	1000 lb
SARA Section 313 - Emission Reporting	1.0 %

Heptane, branched, cyclic and linear (426260-76-6)
Listed on the United States TSCA (Toxic Substances Control Act) inventory

Ethyl acetate (141-78-6)	
Listed on the United States TSCA (Toxic Substances Control Act) inventory	
EPA TSCA Regulatory Flag	T - T - indicates a substance that is the subject of a Section 4 test rule under TSCA.

n-Heptane (142-82-5)	
Listed on the United States TSCA (Toxic Substances Control Act) inventory	
EPA TSCA Regulatory Flag	T - T - indicates a substance that is the subject of a Section 4 test rule under TSCA.

Naphtha, petroleum, hydrotreated light (64742-49-0)
Listed on the United States TSCA (Toxic Substances Control Act) inventory

Phenol-formaldehyde polymer (9003-35-4)
Listed on the United States TSCA (Toxic Substances Control Act) inventory

Methyl ethyl ketone (78-93-3)	
Listed on the United States TSCA (Toxic Substances Control Act) inventory	
SARA Section 311/312 Hazard Classes	Immediate (acute) health hazard Fire hazard

US State Regulations

Proposition 65 – ⚠WARNING: Cancer and Reproductive Harm - www.P65Warnings.ca.gov.

Acetone (67-64-1)
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

Toluene (108-88-3)
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

Ethyl acetate (141-78-6)
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

n-Heptane (142-82-5)
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

Methyl ethyl ketone (78-93-3)
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

Acetone (67-64-1)
Listed on the Canadian DSL (Domestic Substances List) Listed on the Canadian IDL (Ingredient Disclosure List)
IDL Concentration 1 %

Toluene (108-88-3)
Listed on the Canadian DSL (Domestic Substances List) Listed on the Canadian IDL (Ingredient Disclosure List)
IDL Concentration 1 %

Heptane, branched, cyclic and linear (426260-76-6)
Listed on the Canadian DSL (Domestic Substances List)

Ethyl acetate (141-78-6)
Listed on the Canadian DSL (Domestic Substances List) Listed on the Canadian IDL (Ingredient Disclosure List)
IDL Concentration 1 %

n-Heptane (142-82-5)
Listed on the Canadian DSL (Domestic Substances List) Listed on the Canadian IDL (Ingredient Disclosure List)
IDL Concentration 1 %

Naphtha, petroleum, hydrotreated light (64742-49-0)
Listed on the Canadian DSL (Domestic Substances List)

Phenol-formaldehyde polymer (9003-35-4)
Listed on the Canadian DSL (Domestic Substances List)

Methyl ethyl ketone (78-93-3)
Listed on the Canadian DSL (Domestic Substances List) Listed on the Canadian IDL (Ingredient Disclosure List)
IDL Concentration 1 %

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