

SAFETY DATA SHEET.

Gelcote International

Hardener MEKP-50 Part 112-1, 112-2, 112-3

1. IDENTIFICATION OF THE SUBSTANCE OR PREPARATION AND OF THE COMPANY

Identification of Preparation: Hardener MEKP
Date of Safety Data Sheet: March 1, 2019

Use of Preparation: Hardener MEKP.

Company Identification: Gelcote International
613 Neal Drive,
Peterborough,
Ontario
K9J 6X7

Company Telephone Number: 877 435-2683

24 Hour Telephone Number: CANUTEC 613-996-6666 or *666 for cell phone.

2. HAZARD IDENTIFICATION

Emergency Overview:

OSHA / WHMIS 2015 Hazards

Classification of substance or mixture

GHS-US/Canadian classification:

GHS Hazards

Flammable liquids Category 4 H227.

Organic peroxides Type D H242.

Skin corrosion Category 1B H314.

Serious eye damage Category 1 H318.

Acute aquatic toxicity Category 3 H402.

Chronic aquatic toxicity Category 3 H412.

Label Elements

GHS Labeling

Hazard Pictograms (GHS):



Signal Word (GHS): Danger!

Hazard statement

H227 - Combustible liquid.

H242 - Heating may cause a fire.

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H314 - Causes severe skin burns and eye damage.
H412 - Harmful to aquatic life with long lasting effects.

Precautionary statement:

Prevention

P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P220 - Keep/Store away from clothing/strong acids, bases, heavy metal salts and other reducing substances /combustible materials.
P234 - Keep only in original container.
P260 - Do not breathe dust or mist.
P264 - Wash skin thoroughly after handling.
P273 - Avoid release to the environment.
P280 - Wear protective gloves/protective clothing/eye protection/face protection.

Precautionary statement:

Reaction

P301 + P330 + P331 - IF SWALLOWED: rinse mouth. Do NOT induce vomiting.
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 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.
P310 - Immediately call a POISON CENTER/doctor.
P363 - Wash contaminated clothing before reuse.
P370 + P378 - In case of fire: Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide to extinguish.

Precautionary statement:

Storage

P403 + P235 - Store in a well-ventilated place. Keep cool.
P405 - Store locked up.
P411 - Store at temperatures not exceeding 38°C (100°F).
P420 - Store away from other materials.

Precautionary statement:

Disposal

P501 - Dispose of contents/container to an approved waste disposal plant.

3. COMPOSITION / INFORMATION ON INGREDIENTS

Chemical Description: Chemical.

Ingredient	CAS#	% by Wt	Classification
Methyl ethyl ketone peroxide	1338-23-4	50	Flammable liquids Category 4 H227 Organic peroxides Type D H242 Skin corrosion Category 1B H314 Serious eye damage Category 1 H318 Acute aquatic toxicity Category 3 H402

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			Chronic aquatic toxicity Category 3 H412
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4. FIRST AID MEASURES

Inhalation:	Remove to fresh air. If symptoms persist consult physician.
Eye Contact:	Remove contacts. Flush with water for at least 20 minutes, occasionally lifting the upper and lower eyelids. Get medical attention immediately.
Skin Contact:	Thoroughly wash exposed skin with soap and water. Remove any contaminated clothing and wash before reuse.
Ingestion:	Wash out mouth with water. Drink plenty of water. Do not induce vomiting unless directed by medical personnel. Never give anything to an unconscious person. Get medical aid.
Notes to Physician:	None.

5. FIRE FIGHTING MEASURES

Suitable extinguishing media:	Use caution when applying carbon dioxide in confined spaces. SMALL FIRE: Steam, CO2, dry chemical or inert gas (e.g., nitrogen). LARGE FIRE: Use foam, water fog or water spray. Water fog and spray are effective in cooling containers and adjacent structures. However, water can cause frothing and/or may not extinguish the fire. Water can be used to cool the external walls of vessels to prevent excessive pressure, ignition or explosion.
Unsuitable extinguishing media:	Water jet.
Special exposure hazards:	Fire or excessive heat may produce hazardous decomposition products.
Special safety equipment:	Self-contained positive pressure breathing apparatus and protective clothing.
Fire and explosion:	.
Further information:	Keep containers and surroundings cool with water spray. The heat of decomposition of the peroxides adds to the heat of the fire. Dry chemical fire extinguishing agent may catalyze the decomposition. If dry chemical is used to extinguish a peroxide fire, the extinguished area must be thoroughly wetted down with water to prevent re-ignition.

6. ACCIDENTAL RELEASE MEASURES

Personal Precautions, Protective Equipment and Emergency Procedures

General Measures: Do not get in eyes, on skin, or on clothing. Do not breathe mist.

For Non-Emergency Personnel

No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Shut off all

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ignition sources. No flares, smoking or flames in hazard area. Avoid breathing vapour or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.

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: Ventilate area.

Environmental Precautions

Prevent entry to sewers and public waters.

Methods and Material for Containment and Cleaning Up

For Containment: Contain any powder spills with dikes to prevent migration and entry into sewers or streams.

Methods for Cleaning Up: Clear up spills immediately and dispose of waste safely.

Reference to Other Sections: See Heading 8. Exposure controls and personal protection.

7. HANDLING AND STORAGE

Precautions for safe handling:

Rotate stock using the oldest material first. Avoid contact with skin, eyes and clothing. Use PPE as specified in section 8. Keep containers closed to prevent contamination. Keep away from sources of heat, sparks, or flame. Do not add to hot solvents or monomers as a violent decomposition and/or reaction may result. When using spray equipment, never spray raw peroxide onto curing or into raw resin or flues. Keep peroxide in its original container. DO NOT USE NEAR FOOD OR DRINK. Wash thoroughly after handling. Protect from contamination.

Information about fire - and explosion protection:

Keep respiratory protective device available.

No special measures required.

Conditions for safe storage, including any incompatibilities

Storage:

The stability of peroxide formulations is directly related to the shipping and storage temperature history. Cool storage at 80° F (27°C) or below is recommended for longer shelf life and stability. Prolonged storage at elevated temperatures of 100° F (38°C) and higher will cause product degradation, gassing and potential container rupture which can result in a fire and/or explosion. Store out of direct sunlight in a well ventilated area away from combustible and incompatible material. DO NOT STORE WITH FOOD OR DRINK. Refer to NFPA 400 Hazardous Materials Code from the National Fire Protection Association for additional storage information.

Further information

Store apart from other dangerous and incompatible substances. Keep away from direct sunlight. Keep containers tightly closed in a cool, well-ventilated place.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Respiratory protection:

A respiratory protection program that meets OSHA 1910.134 and ANSI Z88.2 or applicable

Federal/provincial requirements must be followed whenever workplace conditions warrant respirator use.

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	NIOSH's "Respirator Decision Logic" may be useful in determining the suitability of various types of respirators.
Hand protection:	Chemical resistant gloves.
Eye protection:	Safety goggles.
Skin protection:	Use body-covering clothing.
Working hygiene:	Take usual precautions when handling. Workers should wash hands before eating, drinking or smoking.
Exposure Guidelines:	None.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical state: Liquid.
Colour: Water-white.
Form: Liquid.
Odour: Slight.
Odour Threshold: No data available.
pH: Not applicable.
Melting point/range: No data available.
Boiling point/range: Not determined.
Flash point: 76 °C (Seta closed cup).
Evaporation rate: Not determined.
Flammability (solid, gas): Not applicable.
Lower explosion limit: No data available.
Upper explosion limit: No data available.
Vapour pressure: No data available.
Relative vapour density: > 1.
Relative density: 1.1.
Water solubility: Soluble.
Solubility/qualitative: No data available.
Partition coefficient (noctanol/water): No data available.
Autoignition temperature: No data available.

10. STABILITY AND REACTIVITY

Stability and reactivity

Reactivity

Stable under recommended storage conditions.

Chemical stability

Contact with incompatible substances can cause disintegration at or below SADT.

Possibility of hazardous reactions

Stability Stable under recommended storage conditions.

Possibility of hazardous reactions.

Vapours may form explosive mixtures with air.

Conditions to avoid

Keep away from heat and sources of ignition.

Exposure to sunlight.

Prolonged storage above 100°F (38°). Storage above SADT. Storage near flammable or

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combustible material.

Incompatible materials

Keep away from strong acids, bases, heavy metals, salts, reducing agents and accelerators.

Contaminants (e.g. rust, dust, ash). Combustible materials. Risk of decomposition.

Dimethylaniline, cobalt naphthenate and other promoters, accelerators, reducing agents, or any hot material.

Hazardous decomposition products

Carbon monoxide, carbon dioxide and unburned hydrocarbons (smoke). Irritant, caustic, flammable, noxious/toxic gases and vapours can develop in the case of fire and decomposition., Acrid smoke and irritating fumes.

11. TOXICOLOGICAL INFORMATION

Information on toxicological effects

Methyl ethyl ketone

Acute oral toxicity LD50 Oral Rat: 2737 mg/kg.

Acute inhalation toxicity LC50 Rat: 23500 mg/l / 8 h.

Acute dermal toxicity LD50 Rabbit: 6480 mg/kg.

Eye irritation: Irritating to eyes.

Assessment of STOT: single exposure.

Target Organs: Central nervous system.

Assessment: May cause drowsiness or dizziness.

Mutagenicity assessment: This product may cause mutagenic effects.

Methyl ethyl ketone peroxide

Acute oral toxicity LD50 Oral Rat (male): 1017 mg/kg.

Skin irritation: Causes severe skin burns and eye damage.

Causes burns.

Eye irritation: Causes serious eye damage.

Risk of serious damage to eyes.

Carcinogenicity:

Chemical Name CAS Number IARC NTP OSHA

No ingredient listed.

Chronic Effects:

Teratogenicity: No evidence of a teratogenic effect (birth defect).

Sensitization: No data available for mixture.

Reproductive: No evidence of negative reproductive effects.

Target Organ Effects:

Acute: No information available.

Chronic: None known.

Hydrogen peroxide

Acute oral toxicity LD50 Oral Rat (male): 1026 mg/kg.

Test substance: Hydrogen peroxide \geq 50%.

LD50 Oral Rat (female): 693.7 mg/kg.

Test substance: Hydrogen peroxide \geq 50%.

Acute inhalation toxicity Assessment: Harmful if inhaled.

Acute dermal toxicity LD50 Dermal Rat (male and female): $>$ 2000 mg/kg.

Skin irritation corrosive.

Eye irritation corrosive.

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12. ECOLOGICAL INFORMATION

Toxicity:	Not classified.
Persistence and Degradability:	Not available.
Bioaccumulative Potential:	No data available.
Mobility in Soil:	Not available.
Other Adverse Effects	
Other Information:	Avoid release to the environment.
Aquatic Toxicity:	No data available.
Toxicity to algae, fish invertebrates:	No data available.
Biodegradation:	No data available.

13. DISPOSAL

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

Ecology – Waste Materials: Avoid release to the environment.

Empty Containers: Do not pierce, drill or burn even after use. Container under pressure.

14. TRANSPORTATION INFORMATION

U.S. Department of Transportation (DOT):

UN number: UN 3105.

UN proper shipping name: Organic peroxide type D, liquid(Methyl ethyl ketone peroxide <= 45%).

Transport hazard class(es): 5.2.

Packing group: II.

Environmental hazards (Marine pollutant):

Special precautions for user: No.

Canadian TDG (Road & Rail):

UN number: UN 3105.

UN proper shipping name: Organic peroxide type D, liquid(Methyl ethyl ketone peroxide <= 45%).

Transport hazard class(es): 5.2.

Packing group: II.

Environmental hazards (Marine pollutant):

Special precautions for user: No.

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15. REGULATION

Toxic Substances Control Act (TSCA): Listed.
US EPA CERCLA Hazardous Substances (40 CFR 302): None.
California PROP 65: Non.e
Canadian Domestic Substance List (DSL): Listed.

Personal Protection: B.
SDS US (GHS HazCom 2012).
SDS CDN (GHS WHIMS 2015).

16. OTHER INFORMATION

Prepared By: Technical Department

Issuing Date: March 1, 2019

Disclaimer:

The manufacturer warrants that this product conforms to its standard specification when used according to direction. To the best of our knowledge the information contained herein is accurate. However we do not assume accuracy or completeness of the information contained herein.

Final determination of the 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.

End of Safety Data Sheet

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Gelcote International - White Liquid Gelcoat.

1. IDENTIFICATION OF THE SUBSTANCE OR PREPARATION AND OF THE COMPANY

Identification of Preparation: White Liquid Gelcoat

Date of Safety Data Sheet: July 20,2018

Use of Preparation: Gelcoat.

Company Identification: Gelcote International/ Captain Phab.
613 Neal Drive,
Peterborough,
Ontario
K9J 6X7

Company Emergency Telephone Number Emergency Phone: 1 888 228-4050

2. HAZARD IDENTIFICATION

Emergency Overview:

OSHA / WHMIS 2015 Hazards

Classification of substance or mixture

GHS-US/Canadian classification:

GHS Hazards:

Flammable liquids, Category 3 H226

Acute toxicity, Category 4, Inhalation H332

Skin irritation, Category 2 H315

Eye irritation, Category 2A H319

Germ cell mutagenicity, Category 2

Carcinogenicity, Category 2 H351

Reproductive toxicity, Category 2 H361d

Specific target organ systemic toxicity - repeated exposure, Category 1, Blood system, Liver, Nervous system, respiratory tract/organ H372

Aspiration hazard, Category 1 H304

Label Elements

GHS Labeling

Hazard Pictograms (GHS):



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Gelcote International - White Liquid Gelcoat.

Signal Word (GHS): Danger

PHYSICAL HAZARDS:

H226: Flammable liquid and vapour.

HEALTH HAZARDS:

H304: May be fatal if swallowed and enters airways.

H332: Harmful if inhaled.

H315: Causes skin irritation.

H319: Causes serious eye irritation.

H335: May cause respiratory irritation.

H351: Suspected of causing cancer.

H361d: Suspected of damaging the unborn child.

H372: Causes damage to organs through prolonged or repeated exposure.

ENVIRONMENTAL HAZARDS:

H401: Toxic to aquatic life.

Prevention:

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/hot surfaces. - No smoking.

P233: Keep container tightly closed.

P240: Ground/bond container and receiving equipment.

P241: Use explosion-proof electrical/ ventilating/ lighting/ equipment.

P242: Use only non-sparking tools.

P243: Take precautionary measures against static discharge.

P260: Do not breathe dust/fume/gas/mist/vapor/spray.

P264: Wash skin thoroughly after handling.

P270: Do not eat, drink or smoke when using this product.

P271: Use only outdoors or in a well-ventilated area.

P273: Avoid release to the environment.

P280: Wear protective gloves/ protective clothing/ eye protection/ face protection.

Response:

P301 + P310: IF SWALLOWED: Immediately call a POISON CENTER or doctor/ physician.

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 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 + P311: IF exposed or concerned: Call a POISON CENTER or doctor/ physician.

P308 + P313: IF exposed or concerned: Get medical advice/ attention.

P321: Specific treatment (see supplemental first aid instructions on this label).

P331: Do NOT induce vomiting.

P332 + P313: If skin irritation occurs: Get medical advice/ attention.

P337 + P313: If eye irritation persists: Get medical advice/ attention.

P362 + P364: Take off contaminated clothing and wash it before reuse.

P370 + P378: In case of fire: Use dry sand, dry chemical or alcohol-resistant foam to extinguish.

Storage:

P403 + P233: Store in a well-ventilated place. Keep container tightly closed.

P403 + P235: Store in a well-ventilated place. Keep cool.

P405: Store locked up.

Disposal:

P501: Dispose of contents/ container to an approved waste disposal plant.

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Gelcote International - White Liquid Gelcoat.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Description: Chemical

Ingredient	CAS#	% by Wt	Classification
Styrene	100-1-42-5	41.5	Flammable liquids, Category 3 Acute toxicity, Category 4, Inhalation Skin irritation, Category 2 Eye irritation, Category 2A Carcinogenicity, Category 2 Reproductive toxicity, Category 1B Specific target organ systemic toxicity - single exposure, Category 1, Central nervous system Specific target organ systemic toxicity - single exposure, Category 3, Respiratory tract irritation Specific target organ systemic toxicity - repeated exposure, Category 1, Blood system, Liver, Nervous system, respiratory tract/organ Aspiration hazard, Category 1
Methyl Methacrylate	80-62-6	2.4	Flammable liquid (Flam. Liq. 2) H225 Skin corrosion/irritation (Skin Irrit. 2) H315 Skin sensitisation (Skin Sens. 1) H317 Specific target organ toxicity - single exposure (respiratory tract irritation) (STOT SE 3) H335
Colbalt 2 Ethylhexanoate	136-52-7	<0.3	Flammable liquids, Category 3 Acute toxicity, Category 4, Inhalation Skin irritation, Category 2 Eye irritation, Category 2A Carcinogenicity, Category 2 Reproductive toxicity, Category 1B Specific target organ systemic toxicity - single exposure, Category 1, Central nervous system Specific target organ systemic toxicity - single exposure, Category 3, Respiratory tract irritation Specific target organ systemic toxicity - repeated exposure, Category 1, Blood system, Liver, Nervous system, respiratory tract/organ Aspiration hazard, Category 1

4. FIRST AID MEASURES

Inhalation:

Remove to fresh air. If symptoms persist consult physician.

Eye Contact:

Remove contacts. Flush with water for at least 20 minutes, occasionally lifting the upper and lower eyelids. Get medical attention immediately.

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Skin Contact:	Thoroughly wash exposed skin with soap and water. Remove any contaminated clothing and wash before reuse.
Ingestion:	Wash out mouth with water. Drink plenty of water. Do not induce vomiting unless directed by medical personal. Never give anything to an unconscious person. Get medical aid.

5. FIRE FIGHTING MEASURES

Flash point:

31 °C (88 °F)

Method: closed cup

Autoignition temperature:

490 °C (914 °F)

Suitable extinguishing media:

Dry chemical. Carbon dioxide (CO₂). Alcohol-resistant foam.

Unsuitable extinguishing media:

High volume water jet.

Specific hazards during fire fighting:

Do not allow run-off from fire fighting to enter drains or water courses.

Special protective equipment for fire-fighters:

Wear self contained breathing apparatus for firefighting if necessary.

Further information:

Standard procedure for chemical fires. Use extinguishing measures that are appropriate to local circumstances and the surrounding environment. Collect contaminated fire extinguishing water separately. This must not be discharged into drains.

Fire and explosion protection:

Normal measures for preventive fire protection. Do not spray on an open flame or any other incandescent material.

Take necessary action to avoid static electricity discharge (which might cause ignition of organic vapors). Keep away from open flames, hot surfaces and sources of ignition.

Hazardous decomposition products:

No data available.

6. ACCIDENTAL RELEASE MEASURES

Personal Precautions, Protective Equipment and Emergency Procedures

General Measures: Do not get in eyes, on skin, or on clothing. Do not breathe mist.

For Non-Emergency Personnel

No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Shut off all ignition sources. No flares, smoking or flames in hazard area. Avoid breathing vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.

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: Ventilate area.

Environmental Precautions

Prevent entry to sewers and public waters.

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Methods and Material for Containment and Cleaning Up

For Containment: Contain any powder spills with dikes to prevent migration and entry into sewers or streams.

Methods for Cleaning Up: Clear up spills immediately and dispose of waste safely.

Reference to Other Sections: See Heading 8. Exposure controls and personal protection.

7. HANDLING AND STORAGE

Precautions for safe handling:

Put on appropriate personal protective equipment (see Section 8). Do not swallow. Avoid contact with eyes, skin and clothing. Avoid breathing vapor or mist. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Do not enter storage areas and confined spaces unless adequately ventilated. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Store and use away from heat, sparks, open flame or any other ignition source. Use explosion-proof electrical (ventilating, lighting and material handling) equipment. Use only non-sparking tools. Take precautionary measures against electrostatic discharges. Empty containers retain product residue and can be hazardous. Do not reuse container. Non equilibrium conditions may increase the fire hazard associated with this product. Always bond receiving containers to the fill pipe before and during loading. Always confirm that receiving container is properly grounded. Bonding and grounding alone may be inadequate to eliminate fire and explosion hazards. Carefully review operations that may increase the risks such as tank and container filling, tank cleaning, sampling, gauging, loading, filtering, mixing, agitation, etc. In addition to bonding and grounding, efforts to mitigate the hazards may include, but are not limited to, ventilation, inerting and/or reduction of transfer velocities. Always keep nozzle in contact with the container throughout the loading process. Do NOT fill any portable container in or on a vehicle.

Information about fire - and explosion protection:

Keep respiratory protective device available.

No special measures required.

Conditions for safe storage, including any incompatibilities

Storage:

Store in accordance with local regulations. Store in a segregated and approved area. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Store locked up. Eliminate all ignition sources. Separate from oxidizing materials. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination. Store in original container, keep closed in a secure location.

Handling

Advice on safe handling:

Inspect tank vents periodically. Styrene vapors may polymerize in vents or flame arrestors of storage tanks. Check temperature, inhibitor and polymer content at least once a week during warm weather. Increase monitoring frequency if stored at greater than 70 F for longer than 30 days. Minimize storage time.

Electrostatic charge may accumulate and create a hazardous condition when handling this material. To minimize this hazard, bonding and grounding may be necessary, but may not by themselves be sufficient. Review all operations, which have the potential to generating and accumulation of electrostatic charge and/or a flammable atmosphere (including tank and container filling, splash filling, tank cleaning, sampling, gauging, switch loading, filtering, mixing, agitation, and vacuum truck operations) and use appropriate mitigating procedures. For more information, refer to OSHA Standard 29 CFR 1910.106 "Flammable and Combustible Liquids"; National Fire Protection Association (NFPA 77), "Recommended Practice on Static Electricity"; and/or the American Petroleum Institute (API) Recommended Practice 2003, "Protection Against Ignitions Arising Out of Static, Lightning, and stray Currents". For personal protection see section 8. Smoking, eating and drinking should be prohibited in the application area.

Advice on protection against fire and explosion:

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Normal measures for preventive fire protection. Do not spray on an open flame or any other incandescent material. Take necessary action to avoid static electricity discharge (which might cause ignition of organic vapors). Keep away from open flames, hot surfaces and sources of ignition.

Storage

Requirements for storage areas and containers:

No smoking. Keep container tightly closed in a dry and well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage. Observe label precautions. Electrical installations / working materials must comply with the technological safety standards.

Further information on storage conditions:

Take precautionary measures against static discharges.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Respiratory protection:	Use local exhaust or dilution ventilation.
Hand protection:	Chemical resistant gloves.
Eye protection:	Safety goggles.
Skin protection:	Use body-covering clothing.
Working hygiene:	Take usual precautions when handling. Workers should wash hands before eating, drinking or smoking.
Exposure Guidelines:	Styrene 8 Hr TWA PEL (OSHA)200 ppm TLV (ACGIH) 15000mg/m ³ Use only with adequate ventilation. Use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits. The engineering controls also need to keep gas, vapor or dust concentrations below any lower explosive limits. Use explosion-proof ventilation equipment.

Ingredients with workplace control parameters

Engineering measures

Adequate ventilation to control airborne concentrations below the exposure guidelines/limits. Consider the potential hazards of this material (see Section 2), applicable exposure limits, job activities, and other substances in the work place when designing engineering controls and selecting personal protective equipment. If engineering controls or work practices are not adequate to prevent exposure to harmful levels of this material, the personal protective equipment listed below is recommended. The user should read and understand all instructions and limitations supplied with the equipment since protection is usually provided for a limited time or under certain circumstances.

Personal protective equipment

Respiratory protection:

Wear a supplied-air NIOSH approved respirator unless ventilation or other engineering controls are adequate to maintain minimal oxygen content of 19.5% by volume under normal atmospheric pressure. Wear a NIOSH approved respirator that provides protection when working with this material if exposure to harmful levels of airborne material may occur, such as: Air-Purifying Respirator for Organic Vapors. Use a positive pressure, air-supplying respirator if there is potential for uncontrolled release, exposure levels are not known, or other circumstances where air-purifying respirators may not provide adequate protection.

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Hand protection:

The suitability for a specific workplace should be discussed with the producers of the protective gloves. Please observe the instructions regarding permeability and breakthrough time which are provided by the supplier of the gloves. Also take into consideration the specific local conditions under which the product is used, such as the danger of cuts, abrasion, and the contact time. Gloves should be discarded and replaced if there is any indication of degradation or chemical breakthrough.

Eye protection:

Tightly fitting safety goggles. Eye wash bottle with pure water.

Skin and body protection:

Choose body protection in relation to its type, to the concentration and amount of dangerous substances, and to the specific work-place. Wear as appropriate: Flame retardant antistatic protective clothing. Workers should wear antistatic footwear.

Hygiene measures:

When using do not eat or drink. When using do not smoke. Wash hands before breaks and at the end of workday.

9. PHYSICAL AND CHEMICAL PROPERTIES

Molecular Weight:	No data available.	Evaporation Rate (BuAc=1):	No data available.
Appearance:	White liquid.	Vapour Density (Air=1):	No data available.
Odour:	Solvent scent.	Specific Gravity:	0.9 g/cm ³ @ 15.5C
Odour Threshold:	No data available.	Solubility in Water:	Not Soluble
PH:	No data available.	Log Pow (calculated):	No data available.
Melting Point:	No data available.	Autoignition Temperature:	No data available.
Boiling Point/Range:	No data available.	Decomposition Temperature:	No data available.
Flash Point:	Closed cup: 31°C (88°F) [Tagliabue (ASTM D-56)]	Viscosity:	0.696 mPa.s.
Flammable Limits in Air:	Lower: 1.1% Upper: 6.1%	Percent Volatile by Volume:	No data available.
Lower Explosion limit:	No data available.		
Upper Explosion limit:	No data available.		

10. STABILITY AND REACTIVITY

Reactivity	Stable at normal ambient temperature and pressure.
Chemical stability	No decomposition if stored and applied as directed. Avoid all possible sources of ignition (spark or flame). Do not pressurize, cut, weld, braze, solder, drill, grind or expose containers to heat or sources of ignition. Do not allow vapor to accumulate in low or confined areas. Do not store with strong oxidizing agents.
Conditions to avoid	
Hazardous decomposition products	Hazardous gases and vapors produced in fire are oxides of carbon.
Materials to avoid	Oxidizing agents
Hazardous polymerization	Will not occur

11. TOXICOLOGICAL INFORMATION

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Gelcote International - White Liquid Gelcoat.

Information on toxicological effects

Acute toxicity:

LD/LC50 values relevant for classification

Routes of Entry Inhalation, ingestion, eye or skin contact

Oral: LD 50 > 2647 g/kg-bw

Dermal: LD 50 > 2g/kg-bw

Inhalation: LC 50=12 mg/L (Vapour) 4 hr. Rat.

Carcinogenicity:

Chemical Name CAS Number IARC NTP OSHA

IARC

Styrene 2B

Methyl Methacrylate 3

Colbalt 2 Hexanoate 2B.

Chronic Effects:

Mutagenicity: No evidence of a mutagenic effect.

Teratogenicity: No evidence of a teratogenic effect (birth defect).

Sensitization: No data available for mixture.

Reproductive: No evidence of negative reproductive effects.

Carcinogen: Suspected human carcinogen.

Target Organ Effects:

Acute: No information available

Chronic: None known

12. ECOLOGICAL INFORMATION

Toxicity:	Not classified
Persistence and Degradability:	Not available
Bioaccumulative Potential:	No data available
Mobility in Soil:	Not available.
Other Adverse Effects	
Other Information:	Avoid release to the environment.
Aquatic Toxicity:	No data available.
Toxicity to algae, fish invertebrates	No data available
Biodegradation:	No data available.

13. DISPOSAL

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

Ecology – Waste Materials: Avoid release to the environment.

Empty Containers: Do not pierce, drill or burn even after use. Container under pressure.

SAFETY DATA SHEET

Gelcote International - White Liquid Gelcoat.

14. TRANSPORTATION INFORMATION

U.S. Department of Transportation (DOT): Class 3, flammable liquid, UN 1866, resin solution PGIII
Canadian TDG (Road & Rail): Class 3, flammable liquid, UN 1866, resin solution PGIII

15. REGULATION

Canadian Domestic Substance List (DSL): Listed.

Personal Protection: B

SDS US (GHS HazCom 2012)

SDS CDN (GHS WHIMS 2015)

16. OTHER INFORMATION

Prepared By: Technical Department

Issuing Date: July 20, 2018

Disclaimer:

The manufacturer warrants that this product conforms to its standard specification when used according to direction. To the best of our knowledge the information contained herein is accurate. However we do not assume accuracy or completeness of the information contained herein.

Final determination of the 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.

End of Safety Data Sheet