

Empack Spraytech Inc. 98 Walker Drive Brampton, Ontario, L6T 4H6 Canada 905-792-6571

CODE: EM-045851

PRODUCT: Emzone 12A A/C Cool Refrigerant - 170 g (6 oz.)

SECTION 01: IDENTIFICATION

Product Item Numbers..... FM-045851

Product Identity..... Emzone 12A A/C Cool Refrigerant - 170 g (6 oz.)

Empack Spraytech Inc. 98 Walker Drive Manufacturer.....

Brampton Ontario Canada L6T 4H6 905-792-6571

24 hour emergency telephone number..... In Canada: Call CANUTEC (613) 996-6666 - In The United States: Call CHEMTREC (800)

424-9300.

Recommended Use..... Environmental friendly refrigerant.

Hydrocarbon blend. Chemical Family.....

SECTION 02: HAZARD IDENTIFICATION



Label Elements: Signal Word..... DANGER.

Hazard Classification:

Physical Hazards..... Flammable Aerosols - Category 1. Gases Under Pressure - Liquefied Gas.

Health Hazards..... Not Classified. Environmental Hazards..... Not Classified.

H222:Extremely flammable aerosol (1). H229:Pressurized container: may burst if heated Hazard Statement.....

(1). H280:Contains gas under pressure; may explode if heated (L). Precautionary Statements:

P210:Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. Prevention..... No smoking. P211:Do not spray on an open flame or other ignition source. P251:Do not

pierce or burn, even after use.

None Response.....

P410+P412:Protect from sunlight. Do not expose to temperatures exceeding 50°C /122°F. Storage.....

P403:Store in a well ventilated place.

Disposal..... P501:Dispose of contents/container in accordance with local, regional, national, and/or

international regulations.

Hazard(s) not otherwise classified (HNOC) None Known.

SECTION 03: COMPOSITION / INFORMATION ON INGREDIENTS			
CHEMICAL NAME AND SYNONYMS	CAS#	WT. %	
Isobutane	75-28-5	30-60	
Propane	74-98-6	30-60	

SECTION 04: FIRST-AID MEASURES

If inhaled, remove to fresh air. If not breathing, give artificial respiration and obtain immediate medical assistance.

Remove contaminated clothing. Rinse skin immediately with plenty of water for 15-20 Skin Contact.....

minutes. Consult a poison control centre or physician immediately.

Check for and remove contact lenses. Immediately flush eyes with water for a minimum of Eye Contact.....

15 minutes keeping eyelids open. Consult a doctor if any irritation occurs.

Ingestion is unlikely to occur. If swallowed do not induce vomiting because of risk of Ingestion..... aspiration into the lungs. If aspiration is suspected obtain immediate medical attention. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Direct contact with eyes may cause temporary irritation. Vapors have a narcotic effect and may Most important symptoms/effects, acute .. and delayed

cause headache, fatique, dizziness and nausea. May cause redness and pain.



PRODUCT: Emzone 12A A/C Cool Refrigerant - 170 g (6 oz.)

SECTION 04: FIRST-AID MEASURES

Indication of immediate medical attention and special treatment needed

Provide general supportive measures and treat symptomatically. In case of shortness of breath give oxygen. Keep victim warm. Keep victim under observation. Symptoms may be delayed.

CODE: EM-045851

SECTION 05: FIRE-FIGHTING MEASURES

General Fire Hazards..... Extremely flammable aerosol.

Dry chemical powder. Carbon dioxide. Foam, water spray or fog. Suitable Extinguishing Media..... Unsuitable Extinguishing Media..... Do not use water jet as an extinguisher, as this will spread the fire.

Specific Hazards Arising from the Chemical In case of fire, the following can be released: Carbon Oxides (CO, CO2), Other unidentified

Organic Compounds.

Special Protective Equipment and Precautions for Firefighters

Firefighters must use standard protective equipment including flame retardant coat, helmet with water to prevent vapor pressure build up. For massive fire in cargo area, use unmanned hose holder or monitor nozzles, if possible. If not, withdraw and let fire burn out.

SECTION 06: ACCIDENTAL RELEASE MEASURES

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

No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Avoid walking through spilled material. Avoid breathing vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment (see Section 08).

Methods and Materials for Containment .. and Cleaning Up

Contain spillage, and then collect with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to local/national regulations (see section 13). Eliminate all ignition sources (no smoking, flares, sparks, or flames in immediate area). Keep combustibles (wood, paper, oil, etc.) away from spilled material.

Environmental Precautions.....

Keep out of drains, sewers, ditches, and waterways. Minimize use of water to prevent

environmental contamination.

SECTION 07: HANDLING AND STORAGE

Precautions for Safe Handling.....

Pressurized container: Do not pierce or burn, even after use. Do not use if spray button is missing or defective. Do not spray on a naked flame or any other incandescent material. Do not smoke while using or until sprayed surface is thoroughly dry. Do not pressurize, cut, weld, braze, solder, drill, grind, or expose empty containers to heat, sparks or open flames. Avoid breathing vapour of this product. Avoid contact with skin and eyes. Avoid prolonged exposure. Use in well-ventilated areas.

Conditions for Safe Storage including any Incompatibilities

Store locked up. Pressurized container. Protect from sunlight and do not expose to temperatures exceeding 50°C (122°F). Do not puncture, incinerate or crush. Do not handle or store near an open flame, heat or other sources of ignition. Store away from incompatible materials (see Section 10).

SECTION 08: EXPOSURE CONTROLS / PERSONAL PROTECTION

INGREDIENTS	TWA	CGIH TLV STEL	OSH/ PEL	A PEL STEL	NIOSH REL
Isobutane	Not available	1,000 ppm	Not available	Not available	Not available
Propane	Not available	Not available	1,000 ppm	Not available	Not available
Appropriate Engineering Controls		Local exhaust ventilation r Value if unprotected perso Chemical splash goggles a Chemical resistant gloves appropriate chemical resis Use approved NIOSH resp None Known. When using, do not eat, do such as washing after han Routinely wash work cloth	are recommended. are recommended. A stant clothing. pirators for emergenci rink or smoke. Always	void contact with the sk es. observe good persona before eating, drinking	in. Wear I hygiene measures,

SECTION 09: PHYSICAL AND CHEMICAL PROPERTIES

Aerosol. Physical Appearance..... Clear/Transparent . Colorless. Odor..... Characteristic . Odor Threshold (ppm).....



CODE: EM-045851

PRODUCT: Emzone 12A A/C Cool Refrigerant - 170 g (6 oz.)

SECTION 09: PHYSICAL AND CHEMICAL PROPERTIES

Aerosol Vapour Pressure (psig, 21°C)..... 80-95 Specific Gravity 0.500-0.610. Vapour Density (Air=1)..... > 1. N/A. pH'..... Boiling Point (°C)..... -11.72. (Isobutane). Not available. -82.8. (Isobutane). N/A. Flashback.... Evaporation Rate (n-Butyl Acetate = 1)..... No data. VOC Content..... > 95 wt.%. Solubility in water..... Not soluble in water. Auto Ignition Temperature (°C)......Aerosol Flame Projection..... 460°C (860°F). (Isobutane). Lower Flammable Limit (% Vol)..... 1.8. (Isobutane). Upper Flammable Limit (% Vol)..... 8.8. (Isobutane). Coefficient of Water/Oil Distribution......Viscosity..... N/A.

INGREDIENTS

Chronic Effects.....

SECTION 10: STABILITY AND REACTIVITY

Product not reactive under normal conditions of use. Chemical Stability..... Material is stable under normal conditions. Possibility of Hazardous Reactions..... Will not occur. Conditions to Avoid..... Avoid sources of heat and flame, and electrostatic charge. Incompatible Materials..... Keep away from heat. Strong oxidizing agents. Hazardous Decomposition Products...... See Section 05.

SECTION 11: TOXICOLOGICAL INFORMATION

658 mg/L (Rat - 4hrs) Not available Isobutane 658 mg/L (Rat - 4hrs) Not available Propane Information on Likely Routes of Exposure: Routes of entry - Inhalation......Routes of entry - Skin & Eye..... Prolonged inhalation may be harmful. Contact with liquid may cause frostbite. Routes of entry - Ingestion..... Routes of entry - Skin Absorption..... No. Symptoms Related to the Physical, Chemical and Toxicological Characteristics Inhalation: Vapors have a narcotic effect and may cause headache, fatigue, dizziness and Acute Toxicity..... nausea. Prolong inhalation may be harmful. Skin Corrosion/Irritation..... N/A. N/A. Germ Cell Mutagenicity..... No data available to indicate product or any components present at greater than 0.1% are mutagenic. Carcinogenicity.....Reproductive Toxicity..... None of the ingredients are listed as possibly carcinogenic to humans by IARC or ACGIH. No information is available. STOT - Single Exposure..... Not classified. STOT - Repeated Exposure..... Not classified. Aspiration Hazard..... Not classified.

May cause damage to the Central Nervous System through prolonged or repeated exposure. Symptoms of overexposure are dizziness, headache, tiredness, nausea,

LC50

LD50

SECTION 12: ECOLOGICAL INFORMATION

unconsciousness.

Ecotoxicity..... May be dangerous for the environment. No data is available on the product itself. Should not be released into the environment. The product itself has not been tested. Persistence and degradability Bioaccumulation Potential..... The product itself has not been tested. Mobility in Soil..... The product itself has not been tested. Other Adverse Effects..... None Known.

PRODUCT: Emzone 12A A/C Cool Refrigerant - 170 g (6 oz.)

SECTION 13: DISPOSAL CONSIDERATIONS

Appropriate Disposal Methods.....

This material and its container must be disposed of as hazardous waste. Avoid release to the environment. Spilled material and water rinses are classified as chemical waste and must be disposed of in accordance with current local, provincial and federal regulations. Contents under pressure. Do not puncture, incinerate or expose to heat, even when empty.

CODE: EM-045851

SECTION 14: TRANSPORT INFORMATION

TDG (Canada- Road)	UN1950, AEROSOLS, Class 2.1, Ltd. Qty.
IMDG (International- Marine)	UN1950, AEROSOLS, Class 2.1, Ltd. Qty.
IATA (International- Air)	UN1950, AEROSOLS, Class 2.1, Ltd. Qty.
	UN1950, AEROSOLS, Class 2.1, Ltd. Otv., Consumer Commodity ORM-D.

SECTION 15: REGULATORY INFORMATION

WHMIS Classification. A: Compressed gas. B5: Flammable aerosol. All ingredients listed appear on the Domestic Substances List (DSL). Canada Regulations:.....Canadian Environmental Protection Act ...

(CEPA)

US Regulations

TSCA Inventory Status..... OSHA.....

California Proposition 65.....

All components are listed on TSCA

This product is considered hazardous under the Federal OSHA hazard communication standard.

This product does not contain any chemical(s) known to the state of California to cause cancer or reproductivity toxicity.

SECTION 16: OTHER INFORMATION

The information contained herein is based on data considered accurate. No guarantee or warranty is expressed or implied regarding the accuracy of this data or the results obtained from the use thereof. The SDS provider assumes no responsibility for personal injury or property damage to vendors or users or third parties, caused by the material. Such vendors or users assume all risks with the use of the material. This product has been classified in accordance with the hazard criteria of the CPR and the SDS contains all the information required by the CPR. .

ACGIH: American Conference of Governmental Industrial Hygienists; CAS: Chemical Abstract Service; NIOSH: National Institute for Occupational Safety and Health Administration-USA; TSCA: Toxic Substances Control Act Abbreviations..... 1976-USA; PEL: Pérmissible Exposure Limit; REL: Recommended Exposure Limit; TLV:

Threshold Limit Value; VOC: Volatile Organic Content; WHMIS: Workplace Hazardous Materials Information System STOT: Specific Target Organ Toxicity.

Regulatory Affairs Prepared by FEB 15/2019 Latest Revision



Empack Spraytech Inc. 98 Walker Drive Brampton, Ontario, L6T 4H6 Canada 905-792-6571

CODE: EM-045856

PRODUCT: Emzone 12A A/C Stop Leak - 114 g (4 oz.)

SECTION 01: IDENTIFICATION

Product Item Numbers..... EM-045856

Product Identity..... Emzone 12A A/C Stop Leak - 114 g (4 oz.)

Manufacturer.... Empack Spraytech Inc. 98 Walker Drive

98 Walker Drive Brampton Ontario Canada L6T 4H6

L6T 4H6 905-792-6571

24 hour emergency telephone number..... In Canada: Call CANUTEC (613) 996-6666 - In The United States: Call CHEMTREC (800)

424-9300.

Chemical Family...... Mixture

Hazard(s) not otherwise classified (HNOC)

SECTION 02: HAZARD IDENTIFICATION



Label Elements: Signal Word..... DANGER. Hazard Classification: Physical Hazards..... Flammable Aerosols - Category 1. Gases Under Pressure - Liquefied Gas . Eye Irritation - Category 2. Respiratory Sensitization - Category 1. Skin Sensitization - Category 1. Specific Target Organ Toxicity, Repeated Exposure - Category 2. Health Hazards..... Not Classified. Environmental Hazards..... H222:Extremely flammable aerosol (1). H229:Pressurized container: may burst if heated Hazard Statement..... (1). H280:Contains gas under pressure; may explode if heated (L). H319:Causes serious eye irritation. H334:May cause allergy or asthma symptoms or breathing difficulties if inhaled. H317:May cause an allergic skin reaction. H373:May cause damage to organs through prolonged or repeated exposure. **Precautionary Statements:** P210:Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. Prevention..... No smoking. P211:Do not spray on an open flame or other ignition source. P251:Do not pierce or burn, even after use. P272:Contaminated work clothing must not be allowed out of the workplace. P280:Wear protective gloves. P280:Wear eye protection/face protection. P264:Wash hand thoroughly after handling. P284:In case of inadequate ventilation, wear respiratory protection. P260:Do not breathe dust/fume/gas/mist/vapours/spray. P302+P352:IF ON SKIN: Wash with plenty of water. P362+P364:Take off contaminated Response..... clothing and wash it before reuse. P321:For specific treatment see section 4 on this SDS. P305+P351+P338:IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. P337+P313:If eye irritation persists: Get medical advice/attention. P304+P340:IF INHALED: Remove person to fresh air and keep comfortable for breathing. P314:Get medical advice/attention if you feel unwell. P410+P412:Protect from sunlight. Do not expose to temperatures exceeding 50°C /122°F. Storage..... P403:Store in a well ventilated place. Disposal..... P501:Dispose of contents/container in accordance with local, regional, national, and/or international regulations.

SECTION 03: COMPOSITION / INFORMATION ON INGREDIENTS CHEMICAL NAME AND SYNONYMS CAS# WT. % Isobutane 75-28-5 30-60 Propane 74-98-6 30-60 10-30 Silanes Mix Methanol 67-56-1 0.1 - 1



None Known.

PRODUCT: Emzone 12A A/C Stop Leak - 114 g (4 oz.)

SECTION 04: FIRST-AID MEASURES

If inhaled, remove to fresh air. If not breathing, give artificial respiration and obtain Inhalation..... immediate medical assistance. Remove contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes. Consult a poison control centre or physician immediately. Skin Contact..... Eye Contact..... Check for and remove contact lenses. Immediately flush eyes with water for a minimum of 15 minutes keeping eyelids open. Consult a doctor if any irritation occurs. If swallowed, call a Poison Control Center or doctor immediately. Do not induce vomiting. Most important symptoms/effects, acute ... and delayed

Indication of immediate medical attention and special treatment needed

Provide general supportive measures and treat symptomatically. In case of shortness of breath give oxygen. Keep victim warm. Keep victim under observation. Symptoms may be

CODE: EM-045856

SECTION 05: FIRE-FIGHTING MEASURES

Suitable Extinguishing Media..... Dry chemical powder. Carbon dioxide. Foam, water spray or fog. Unsuitable Extinguishing Media..... Do not use water jet as an extinguisher, as this will spread the fire. Specific Hazards Arising from the Chemical Contents under pressure. Pressurized container may explode when exposed to heat or flame Firefighters must use standard protective equipment including flame retardant coat, helmet Special Protective Equipment and Precautions for Firefighters with water to prevent vapor pressure build up. For massive fire in cargo area, use unmanned hose holder or monitor nozzles, if possible. If not, withdraw and let fire burn out. General Fire Hazards..... Extremely flammable aerosol.

SECTION 06: ACCIDENTAL RELEASE MEASURES

Personal Precautions, Protective No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Avoid walking through spilled material. Avoid breathing vapor or mist. Provide adequate **Equipment and Emergency Procedures** ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate

personal protective equipment (see Section 08).

Methods and Materials for Containment .. and Cleaning Up

Contain spillage, and then collect with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to local/national regulations (see section 13).

Environmental Precautions.....

Keep out of drains, sewers, ditches, and waterways. Minimize use of water to prevent environmental contamination.

SECTION 07: HANDLING AND STORAGE

Precautions for Safe Handling..... Read and observe all precautions and instructions on the label. Product is flammable. Do not pressurize, cut, weld, braze, solder, drill, grind, or expose empty containers to heat,

sparks or open flames. Avoid contact with eyes, skin, and clothing. Avoid breathing vapour of this product. Avoid prolonged exposure. Use in well-ventilated areas.

Conditions for Safe Storage including any Incompatibilities

Do not handle or store near an open flame, heat or other sources of ignition. Store away from incompatible materials (see Section 10).

SECTION 08: EXPOSURE CONTROLS / PERSONAL PROTECTION

INGREDIENTS	TWA	GIH TLV STEL	OSH, PEL	A PEL STEL	NIOSH REL
Isobutane	Not available	1,000 ppm	Not available	Not available	Not available
Propane	Not available	Not available	1,000 ppm	Not available	Not available
Silanes	Not available	Not available	Not available	Not available	Not available
Methanol	200 ppm	250 ppm	Not available	Not available	200 ppm (TWA)
Appropriate Engineering		Local exhaust ventilation required to maintain the point of use below the Threshold Limit Value if unprotected personnel are involved.			
Eye/Face Protection Skin Protection		Do not get in eyes. Wear safety glasses with side-shields. Chemical resistant gloves are recommended. Avoid contact with the skin. Wear appropriate chemical resistant clothing.			
Respiratory Protection	Use NIOSH approved res	se NIOSH approved respirator suitable for organic vapours.			
Thermal Hazards					

CODE: EM-045856

PRODUCT: Emzone 12A A/C Stop Leak - 114 g (4 oz.)

SECTION 09: PHYSICAL AND CHEMICAL PROPERTIES

Form..... Aerosol. Physical Appearance..... Clear, colorless. Odor.....Odor Threshold (ppm)..... Mild Odor. Specific Gravity N/A. Vapor Pressure (@ 20°C)..... Vapour Density (Air=1)..... Not applicable. pH'.....Hq Boiling Point liquid (°C)..... 124.65. Melting/Freezing Point (°C)..... Flash Point (°C), Method..... 27. Tag Closed Cup. Flashback.....Evaporation Rate (n-Butyl Acetate = 1).... VOC Content..... > 75% Solubility in water..... Insoluble. N/A. 460°C (860°F). (Isobutane). 1.8. (Isòbutane). Upper Flammable Limit (% Vol)..... 8.8. (Isobutane). Coefficient of Water/Oil Distribution......

SECTION 10: STABILITY AND REACTIVITY

Product not reactive under normal conditions of use. Reactivity

Chemical Stability..... Material is stable under normal conditions.

Possibility of Hazardous Reactions..... Will not occur.

Avoid sources of heat and flame, and electrostatic charge. Reacts with water and acid. Conditions to Avoid.....

Incompatible Materials..... Oxidizing agents. Water. Acids. Bases.

Hazardous Decomposition Products...... Carbon Oxides.

SECTION 11: TOXICOLOGICAL INFORMATION

INGREDIENTS		LC50	LD50
Isobutane		658 mg/L (Rat - 4hrs)	Not available
Propane		658 mg/L (Rat - 4hrs)	Not available
Silanes		Not available	Not available
Methanol		3 mg/L (4hrs)	300 mg/kg (Humans); 300 mg/kg (Humans)
Information on Likely Routes of Exposure: Routes of entry - Inhalation	No. No. No. Irritating to the eyes. Irrita	ating to the skin. n. Prolonged contact may be more	irritating.

Serious Eye Damage/Eye Irritation..... May irritate eyes.

Respiratory or Skin Sensitization.....

May cause an allergic skin reaction. No data available to indicate product or any components present at greater than 0.1% are Germ Cell Mutagenicity.....

mutagenic.

None of the ingredients are listed as possibly carcinogenic to humans by IARC or ACGIH. Carcinogenicity.....

Reproductive Toxicity..... Contains no ingredient listed as toxic to reproduction.

Not classified.

STOT - Single Exposure.....STOT - Repeated Exposure..... Specific Target Organ, Repeated Exposure- Category 2. May cause damage to the organs

through prolonged or repeated exposure.

Aspiration Hazard..... Not classified.

Prolonged inhalation may be harmful. May be harmful if absorbed through skin. Chronic Effects.....

SECTION 12: ECOLOGICAL INFORMATION

Ecotoxicity..... Complete information is not yet available. This product has not been tested. Based on information available on its ingredients, no adverse environmental impact is anticipated under intended use in accordance with instructions.

Persistence and degradability The product itself has not been tested.

Bioaccumulation Potential..... The product itself has not been tested.



PRODUCT: Emzone 12A A/C Stop Leak - 114 g (4 oz.)

Appropriate Disposal Methods.....

SECTION 12: ECOLOGICAL INFORMATION

Mobility in Soil..... The product itself has not been tested. Other Adverse Effects..... None Known.

SECTION 13: DISPOSAL CONSIDERATIONS

Empty containers may be recycled. Contents under pressure. Do not puncture, incinerate or crush. Do not allow this material to drain into sewers/water supplies. Do not contaminate ponds, waterways or ditches with chemical or used container. Dispose in accordance with current local, provincial and federal regulations.

CODE: EM-045856

SECTION 14: TRANSPORT INFORMATION

TDG (Canada- Road)..... UN1950, AEROSOLS, Class 2.1, Ltd. Qty. UN1950, AEROSOLS, Class 2.1, Ltd. Qty., Consumer Commodity ORM-D. UN1950, AEROSOLS, Class 2.1, Ltd. Qty. UN1950, AEROSOLS, Class 2.1, Ltd. Qty. UN1950, AEROSOLS, Class 2.1, Ltd. Qty.

SECTION 15: REGULATORY INFORMATION

WHMIS Classification. D2B: Material causing other toxic Materials. Canada Regulations:.... All ingredients listed appear on the Domestic Substances List (DSL). Canadian Environmental Protection Act ... (CEPA) ÙS Regulations..... Environmental Protection Act: Constituents of this product are included on the TSCA inventory

This product is considered hazardous under the Federal OSHA hazard communication standard.

SECTION 16: OTHER INFORMATION

Disclaimer..... The information contained herein is based on data considered accurate. No guarantee or warranty is expressed or implied regarding the accuracy of this data or the results obtained from the use thereof. The SDS provider assumes no responsibility for personal injury or property damage to vendors or users or third parties, caused by the material. Such vendors or users assume all risks with the use of the material. This product has been classified in accordance with the hazard criteria of the CPR and the SDS contains all the information required by the CPR. .

ACGIH: American Conference of Governmental Industrial Hygienists; CAS: Chemical Abstract Service; NIOSH: National Institute for Occupational Safety and Health, OSHA: Abbreviations..... Occupational Safety and Health Administration- USA; TSCA: Toxic Substances Control Act 1976-USA; PEL: Permissible Exposure Limit; REL: Recommended Exposure Limit; TLV: Threshold Limit Value; VOC: Volatile Organic Content; WHMIS: Workplace Hazardous Materials Information System STOT: Specific Target Organ Toxicity.

Prepared by Regulatory Affairs DEC 03/2018 Latest Revision