

FV Tech Nano
399 Four Valley Drive, Unit 22
Concord, Ontario, L4K-5Y7
Canada
905-738-3986

PRODUCT: Gamma-nano Marine Electrical Insulation - 100g

CODE: AD-710042

Section 01: CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Product Item Numbers..... AD-710042
Product Identity..... Gamma-nano Marine Electrical Insulation - 100g
Manufacturer..... Empack Spraytech Inc.
98 Walker Drive
Brampton
Ontario
Canada
L6T 4H6
905-792-6571
24 hour emergency telephone number..... CANUTEC: (613)-996-6666 collect.
Recommended Use..... Protects against moisture and insulates.
Chemical Family..... Mixture.

Section 02: HAZARDS IDENTIFICATION



Hazard Classification:

Physical Hazards..... Flammable Aerosols - Category 2. Gases Under Pressure - Compressed gas.
Health Hazards..... Specific Target Organ Toxicity, Single Exposure - Category 3. Specific Target Organ Toxicity, Repeated Exposure - Category 2. Skin Irritation - Category 3. Eye Damage/Irritation - Category 2B. Aspiration Hazard - Category 1.
Environmental Hazards..... Chronic Aquatic Hazard - Category 2.
Label Elements:
Signal Word..... DANGER.
Hazard Statement..... Flammable Aerosol. Pressurized container: may burst if heated. Causes mild skin irritation. Causes eye irritation. May be fatal if swallowed and enters airways. May cause respiratory irritation. May cause damage to the liver and kidneys through prolonged or repeated exposure. Toxic to aquatic life with long lasting effects.
Precautionary Statements:
Prevention..... Avoid breathing dust/fume/gas/mist/vapours/spray. Use only outdoors or in a well-ventilated area. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Do not spray on an open flame or other ignition source. Do not pierce or burn, even after use. Wash thoroughly after handling. Avoid release to the environment.
Response..... IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER if you feel unwell. If skin irritation or rash occurs: Get medical advice/attention. IF SWALLOWED: Immediately call a POISON CENTER. Do NOT induce vomiting. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention. Get medical advice/attention if you feel unwell. Collect spillage.
Storage..... Protect from sunlight. Do not expose to temperatures exceeding 50°C /122°F . Store locked up. Store in a well-ventilated place. Keep container tightly closed.
Disposal..... Dispose of contents/ container in accordance with local/regional/national/international regulations.
Hazard(s) not otherwise classified (HNOC).. None Known.

Section 03: COMPOSITION/INFORMATION ON INGREDIENTS

Hazardous Ingredients	CAS #	Wt. %
Hydrocarbons, C7-C9, n-alkanes, isoalkanes, cyclics	Proprietary	30-60
Isobutane	75-28-5	15-40
Propane	74-98-6	10-30
2,6-di-tertiary butyl-p cresol	128-37-0	0.1-1

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Inhalation.....	If inhaled, remove to fresh air. If not breathing, give artificial respiration and obtain immediate medical assistance.
Skin Contact.....	Remove contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes. Consult a poison control centre or physician immediately.
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.
Ingestion.....	If swallowed, call a Poison Control Center or doctor immediately. Do not induce vomiting.
Most important symptoms/effects, acute and delayed	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 cause headache, fatigue, dizziness and nausea. May cause redness and pain.
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.

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.	In case of fire, the following can be released: Carbon Oxides (CO, CO ₂), 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.
General Fire Hazards.....	Flammable Aerosol.

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. Do not touch or walk 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	ACGIH TLV		PEL	OSHA PEL		NIOSH
	TWA	STEL		STEL	REL	
Hydrocarbons, C7-C9, n-alkanes, isoalkanes, cyclics	1200 mg/m ³	Not available	Not available	Not available	Not available	Not available
Isobutane	800 ppm	1000 ppm	800 ppm	Not available	800 ppm (TWA)	
Propane	2,500 ppm	Not available	1,000 ppm	Not available	1,000 ppm	
2,6-di-tertiary butyl-p cresol	10 mg/m ³	Not available	Not available	Not available	Not available	
Appropriate Engineering Controls.....	Local exhaust ventilation required to maintain the point of use below the Threshold Limit Value if unprotected personnel are involved.					
Individual Protection Measures:						
Eye/Face Protection.....	Do not get in eyes. Wear safety glasses with side-shields.					

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Section 08: EXPOSURE CONTROLS / PERSONAL PROTECTION

Skin Protection..... Chemical resistant gloves are recommended. Avoid contact with the skin. Wear appropriate chemical resistant clothing.

Respiratory Protection..... Use dust and mist respirator.

Thermal Hazards..... None Known.

General Hygiene Considerations..... When using, do not eat, drink or smoke. Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants.

Section 09: PHYSICAL AND CHEMICAL PROPERTIES

Form..... Aerosol.

Physical Appearance..... Amber. Clear liquid.

Odor..... Characteristic .

Odor Threshold (ppm)..... N/A.

Specific Gravity (Aerosol)..... 0.694.

Specific Gravity (Liquid)..... 0.823.

Aerosol Vapour Pressure (psig, 21°C)..... 60-70.

Vapour Density (Air=1)..... N/A.

pH..... N/A.

Boiling Point liquid (°C)..... -11.72°C (10.9°F). (For propellant).

Melting/Freezing Point (°C)..... N/A.

Flash Point (°C), Method..... Closed cup: -83.15 °C (-117.7 °F). (For propellant).

Flashback..... N/A.

Evaporation Rate (n-Butyl Acetate = 1)..... N/A.

VOC Content..... N/A.

Solubility in water..... Miscible.

Aerosol Flame Projection..... < 75cm.

Auto Ignition Temperature (°C)..... 460°C (860°F). (For propellant).

Lower Flammable Limit (% Vol)..... 1.8. (For propellant).

Upper Flammable Limit (% Vol)..... 9.5. (For propellant).

Coefficient of Water/Oil Distribution..... N/A.

Viscosity..... Thin.

Section 10: STABILITY AND REACTIVITY

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..... Carbon Oxides.

Section 11: TOXICOLOGICAL INFORMATION

Ingredients	LC50	LD50
Hydrocarbons, C7-C9, n-alkanes, isoalkanes, cyclics	>23,3 mg/L (Inh.4hr,Rat)	>5000 mg/kg (Oral,Rat); >2800 mg/kg (Dermal,Rabbit)
Isobutane	658 mg/L (4hrs,Rat)	Not available
Propane	>800,000 ppm (15 min,Rat)	Not available
2,6-di-tertiary butyl-p cresol	Not available	10000 mg/kg (Ora,Rat); >5000 mg/kg (Dermal,Rabbit)

Information on Likely Routes of Exposure:

Routes of entry - Inhalation..... Yes.

Routes of entry - Skin & Eye..... Yes.

Routes of entry - Ingestion..... Yes.

Routes of entry - Skin Absorption..... No.

Symptoms Related to the Physical, Chemical and Toxicological Characteristics..... Irritant effects. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Defatting of the skin. Symptoms of overexposure may be headache, dizziness, tiredness, nausea and vomiting.

Acute Toxicity..... Harmful or fatal if swallowed. Irritating to the eyes,nose and throat. Skin contact may cause irritation.

Skin Corrosion/Irritation..... Causes mild skin irritation. Prolonged contact may be more irritating.

Serious Eye Damage/Eye Irritation..... Causes eye irritation.

Respiratory or Skin Sensitization..... May cause sensitization by skin contact. Inhalation may cause respiratory tract irritation.

Germ Cell Mutagenicity..... No data available to indicate product or any components present at greater than 0.1% are mutagenic.

Carcinogenicity..... This product is not considered to be a carcinogen by IARC, ACGIH, NTP, or OSHA.

Reproductive Toxicity..... Based on available data, the classification criteria are not met.

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Section 11: TOXICOLOGICAL INFORMATION

Specific Target Organ Toxicity - Single Exposure	Specific target organ toxicity single exposure Category 3. May cause respiratory irritation.
Specific Target Organ Toxicity - Repeated Exposure	Specific Target Organ, Repeated Exposure- Category 2. May cause damage to the liver and kidneys through prolonged or repeated exposure.
Aspiration Hazard	Aspiration into the lungs during swallowing or subsequent vomiting may cause chemical pneumonitis, which can be fatal.
Chronic Effects	Frequent or prolonged contact may defat and dry the skin, leading to discomfort and dermatitis. Breathing high concentrations of vapor may cause anesthetic effects and serious health effects.

Section 12: ECOLOGICAL INFORMATION

Ecotoxicity	Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment. This material and its container must be disposed of as hazardous waste. Avoid release to the environment. This product contains the following substances which is hazardous for the environment: Hydrocarbons, C7-C9, n-alkanes, cyclics: Toxicity to fish: LL50 3-10 mg/L, 96hrs; Toxicity to daphnia: EL50 4.6-10 mg/L, 48hrs; Toxicity to algae: EbL50 10-30mg/kg, 72hrs.
Persistence and degradability	The product itself has not been tested.
Bioaccumulation Potential	The product itself has not been tested.
Mobility in Soil	The product itself has not been tested.
Other Adverse Effects	None Known.

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.
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Section 14: TRANSPORT INFORMATION

TDG (Canada- Road)	AEROSOLS, Class 2.1, UN1950.
DOT (US-Road)	AEROSOLS, Class 2.1, UN1950, LTD. QTY. OR ORM-D.
IMDG (International- Marine)	AEROSOLS, Class 2.1, UN1950.
IATA (International- Air)	AEROSOLS, Class 2.1, UN1950, LTD QTY.

Section 15: REGULATORY INFORMATION

Canada Regulations	WHMIS Classification. A: Compressed gas. B5: Flammable Aerosol. D2B: Material causing other toxic Materials.
Canadian Environmental Protection Act (CEPA)	All ingredients listed appear on the Domestic Substances List (DSL).
US Regulations	Environmental Protection Act: Constituents of this product are included on the TSCA inventory.
OSHA	This product is considered hazardous under the Federal OSHA hazard communication standard.
California Proposition 65	This product does not contain any chemical(s) known to the state of California to cause cancer or reproductivity toxicity.

Section 16: OTHER INFORMATION

Disclaimer	The information contained herein is based on data considered accurate. No 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 vendees or users or third parties, caused by the material. Such vendees 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. THIS SDS IS VALID FOR THREE YEARS.
Abbreviations	ACGIH: American Conference of Governmental Industrial Hygienists; CAS: Chemical Abstract Service; NIOSH: National Institute for Occupational Safety and Health, OSHA: 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; WHIMIS: Workplace Hazardous Materials Information System.
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