

**empack**Empack Spraytech Inc.  
98 Walker Drive  
Brampton, Ontario, L6T 4H6  
Canada  
905-792-6571**PRODUCT: Emzone Glass Cleaner Ammonia Fortified - 517g****CODE: 044003****Section 01: CHEMICAL PRODUCT AND COMPANY IDENTIFICATION**

Product Item Numbers..... 044003  
 Product Identity..... Emzone Glass Cleaner Ammonia Fortified - 517g  
 Manufactured by..... 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..... Cleans windows, mirrors, windshields, tile, porcelain, stainless steel, chrome.  
 Consumer Commodity..... Yes.  
 Hazard Ratings:  
 HMIS..... Health: 1 Fire: 1 Reactivity: 0.  
 NFPA Rating..... Health: 1 Fire: 1 Reactivity: 0.

**Section 02: HAZARDS IDENTIFICATION**

Emergency Overview..... Poison. Contents under pressure. Do not puncture. Do not burn. Do not get in eyes or clothing. KEEP OUT OF REACH OF CHILDREN .  
 Potential Health Effects:  
 Eye Contact..... May cause irritation, redness and pain.  
 Skin Contact..... Can cause skin irritation. Prolonged or repeated contact may dry the skin.  
 Ingestion..... Ingestion may cause headache, nausea, vomiting and weakness.  
 Inhalation..... Inhalation of solvents or dust may cause irritation.

**Section 03: COMPOSITION/INFORMATION ON INGREDIENTS**

Hazardous Ingredients	CAS #	Wt. %
Isopropyl Alcohol	67-63-0	15-30
Isobutane	75-28-5	5-10
2-Butoxyethanol	111-76-2	3-7
Ammonia Solution	7664-41-7	0.1-1

**Section 04: FIRST AID MEASURES**

Eye Contact..... Immediately flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Get medical attention if irritation persists.  
 Skin Contact..... Wash thoroughly with soap and lukewarm water.  
 Ingestion..... If ingested, do not induce vomiting, get medical attention.  
 Inhalation..... If inhaled, remove to fresh air. If not breathing, give artificial respiration and obtain immediate medical assistance. If breathing is difficult, give oxygen and get medical attention.  
 Additional Information..... Note to the doctor; treat symptomatically.

**Section 05: FIRE FIGHTING MEASURES**

Flammability Class..... Non-flammable (but contains flammable gas).  
 Extinguishing Media..... Wear NIOSH approved self-contained breathing apparatus or equivalent and full protective gear. Use water spray to cool fire-exposed containers in order to prevent pressure build up.  
 Sensitivity to Mechanical Impact..... Not expected to be sensitive.  
 Sensitivity to Static Discharge..... Not expected to be sensitive.

**Section 06: ACCIDENTAL RELEASE MEASURES**

Spills and Leaks..... Large spill or leak is unlikely in aerosol containers. If spill or leak occurs, ventilate enclosed spaces and disperse gas with floor-level forced-air ventilation. Exhaust vapours outdoors. Do not smoke or operate internal combustion engines. Remove flames and heating elements.

PRODUCT: Emzone Glass Cleaner Ammonia Fortified - 517g

CODE: 044003

**Section 07: HANDLING AND STORAGE**

Handling..... Do not breathe vapour or mist. Avoid contact with eyes, skin, and clothing. Use with adequate ventilation. Do not enter confined spaces unless adequately ventilated.

**Section 08: EXPOSURE CONTROLS / PERSONAL PROTECTION**

Eye/Type..... Safety glasses with side-shields.  
 Skin/Type..... Not normally required. Use rubber or latex gloves when there is a potential for prolonged or excessive skin contact.  
 Respiratory/Type..... Use dust and mist respirator.  
 Engineering Controls..... Local exhaust ventilation required to maintain the point of use below the Threshold Limit Value if unprotected personnel are involved.

## Exposure Limits

Ingredients	TWA	ACGIH TLV		PEL	OSHA PEL		REL	NIOSH
			STEL			STEL		
Isopropyl Alcohol	400 ppm (983 mg/m <sup>3</sup> )	500 ppm (1230 mg/m <sup>3</sup> )		400 ppm (980 mg/m <sup>3</sup> )	500 ppm (1,225 mg/m <sup>3</sup> )		400 ppm (TWA)	
Isobutane	800 ppm	1000 ppm		800ppm	Not available		800 ppm (TWA)	
2-Butoxyethanol	20 ppm	Not available		50 ppm	Not available		Not available	
Ammonia Solution	25 ppm	35 ppm		50 ppm	Not available		25 ppm	

**Section 09: PHYSICAL AND CHEMICAL PROPERTIES**

Physical State..... Aerosol.  
 Physical Appearance..... Clear mist.  
 Odour..... Fragrance.  
 Odour Threshold (ppm)..... Not determined.  
 pH..... 10-11.  
 Vapour Pressure (psig)..... 45-65.  
 Vapour Density (Air=1)..... > 1.  
 Evaporation Rate (n-Butyl Acetate = 1)..... > 1 (n-Butyl Acetate = 1).  
 Initial Boiling Point/Boiling Range (° C)..... Not available.  
 VOC Content..... 95-100 %wt.  
 Specific Gravity (Liquid)..... Not available.  
 Specific Gravity (Aerosol)..... 0.910-0.970.  
 Solubility in water..... Miscible in water.  
 Aerosol Flame Projection..... Not applicable.  
 Auto Ignition Temperature (Propellant), ° C.. 460 °C/860 °F.  
 Flashback..... None.  
 Flash Point (° C), Method..... Closed cup: -83.15 °C (-117.7 °F).  
 Lower Flammable Limit (% Vol)..... 1.8.  
 Upper Flammable Limit (% Vol)..... 8.5.

**Section 10: STABILITY AND REACTIVITY**

Stability..... Stable at normal temperatures and pressures.  
 Incompatibility..... Strong oxidizing agents.  
 Conditions to Avoid..... Avoid sources of heat and flame, and electrostatic charge.  
 Hazardous Products of Decomposition..... May form carbon dioxide and carbon monoxide, various hydrocarbons.  
 Hazardous Polymerization..... Will not occur.

**Section 11: TOXICOLOGICAL INFORMATION**

Route of Exposure..... Skin contact, Skin absorption, Eye contact, Inhalation, and Ingestion.  
 Effects of Acute Exposure..... May cause dermatitis, irritation to eyes, dizziness, and vomiting.  
 Effects of Chronic Exposure..... No information is available, and no adverse effects are expected.  
 Carcinogenicity of Material..... None known when used below acute toxicity limit.  
 Reproductive Effects..... No information is available, and no adverse effects are expected. Reproductive Effects.  
 Teratogenicity..... No information is available, and no adverse effects are expected.  
 Mutagenicity..... No information is available, and no adverse effects are expected.

## Toxicological Data

Ingredients	LC50	LD50
Isopropyl Alcohol	>20,000 ppm (4hrs-rat)	4,700 - 5,800 mg/kg (oral,rat)
Isobutane	658 mg/L (4hrs,rat)	Not available
2-Butoxyethanol	450 ppm (4hr,rat)	470 mg/kg (4hr,oral,rat)
Ammonia Solution	2,000 (rat- 4hrs)	Not applicable

PRODUCT: Emzone Glass Cleaner Ammonia Fortified - 517g

CODE: 044003

**Section 12: ECOLOGICAL INFORMATION**

Environmental..... Liquid release is only expected to cause localized, non-persistent environmental damage, such as freezing.

**Section 13: DISPOSAL CONSIDERATIONS**

Appropriate Disposal Methods..... Dispose in accordance with local, provincial and federal regulations.

**Section 14: TRANSPORT INFORMATION**

TDG (Canada- Road)..... AEROSOLS, Class 2.2, UN1950.  
 DOT (US-Road)..... AEROSOLS, Class 2.2, UN1950, LTD QTY, Consumer Commodity ORM-D.  
 IMDG (International- Marine)..... AEROSOLS, Class 2.2, UN1950.  
 IATA (International- Air)..... AEROSOLS, Class 2.2, UN1950, LTD QTY .

**Section 15: REGULATORY INFORMATION**

Canada..... WHMIS Classification. A: Compressed gas. D2B: Material causing other toxic Materials.  
 USA..... Environmental Protection Act: Constituents of this product are included on the TSCA inventory. OSHA (29CFR 1910.1200) Classification: Compressed Gas. HIMS Classifications: see section 01.

**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. Empack 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; WHMIS: Workplace Hazardous Materials Information System.

Prepared by ..... Regulatory Affairs  
 Preparation Date..... Oct04/13  
 Last Revision Date ..... Sep19/14