

# Material Safety Data Sheet

## 1. Chemical Product and Company Information

**Product Name:** emzone LCD, LED & Plasma Screen Cleaner Foam (aerosol)

**Product Item Numbers:** 47043, 47046, 47070, 47072, 47076

**Product Manufacturer:** Empack Spraytech Inc.  
**Address:** 98 Walker Drive  
Brampton, Ontario, Canada L6T 4H6

**Telephone:** (905) 792 – 6571

**Emergency Telephone:** Empack: (905) 792-6571 (8:00 am – 4:00 pm ET)  
CANUTEC: (613) 996-6666 collect (24 Hours)

**Product Use:** Cleans computer monitors, LCD, LED and television screens

**WHMIS Classification:** A

**TDG Classification:** AEROSOLS, Class 2.1, UN1950  
**Under the Clear Language Regulations:** refer to Section 1.17 ship as **Consumer commodity** for Limited Quantity Shipping Information, if shipping under this exemption.

**Prepared By:** Empack Regulatory Department

**Preparation Date:** July 15, 2011

**Last update:** September 30, 2011

## 2. Composition / Information on Ingredients

Hazardous Ingredients	CAS Number	Weight %	TLV- ACGIH (ppm)
Isobutane	34590-94-8	10- 30	800
2-Butoxyethanol	111-76-2	1- 5	50
Surfactants	mix	0.1- 1	N/Av

## 3. Hazards Identification

**Emergency overview:** Do not swallow. Do not contact with eyes. Content under pressure.

## 4. First Aid Measures

**Inhalation:** Irritant to respiratory system. If affected by inhalation of vapour or spray mist, move to fresh air. Obtain medical attention.

**Skin Contact:** Possible mild irritation at point of contact. Wash immediately with soap and water.

**Eye Contact:** Possible mild irritation and redness. Flush eyes with running water for 15 minutes.

**Ingestion:** Possible irritation of throat. Do not induce vomiting. Rinse mouth with water. If conscious, give 500 ml of water to drink immediately.

**5. Fire Fighting Measures**

**Flammability:** Non-flammable

**Conditions of Flammability:** Ignition sources, excessive heat, open flame, sparks and electrostatic charge.

**Flash Point:** < -17.77°C (Propellant)

**Autoignition Temperature:** Not determined

**Flammability Limits in Air (%):** LEL:Not applicable (Product), 1.8 (Propellant)

UEL:Not applicable (Product), 8.4 (Propellant)

**Fire Fighting Procedures:** Wear NIOSH approved self-contained breathing apparatus or equivalent and full protective gear. Aerosol cans may rupture when heated.

**Hazardous Combustion Products:** Not available

**Extinguishing media:** Suitable extinguishing media for the surrounding fire should be used.

**Rate of Burning:** Not available

**Explosive Power:** Not available

**Sensitivity to Mechanical Impact:** Not available. Not expected to be sensitive to mechanical impact.

**Sensitivity to Static Discharge:** Not determine

**6. Accidental Release Measure**

**Spill and Leak:** Large spill or leak is unlikely in aerosol containers. If happens, ventilate enclosed spaces and disperse gas with floor-level forced-air ventilation. Exhaust vapors outdoors. Do not use combustible materials such as sawdust as an absorbent. Remove with inert absorbent material. Wash area with an aqueous solution of trisodium phosphate. Prevent material from entering water systems or sanitary sewers. Do not smoke or operate internal combustion engines. Remove flames and heating elements.

**7. Handling And Storage**

Contents under pressure. Store in cold, well ventilated area at Temperature below 45 °C. Avoid sparks and open flames.

**8. Exposure Controls/Personal Protection**

**Engineering Controls:** Local exhaust ventilation required to maintain the point of use below the Threshold Limit Value if unprotected personnel are involved. Ground all equipment and cylinders before use.

**Respiratory Protection:** Not required on a short-term basis or if exhaust ventilation is provided.

**Eye Protection:** Use chemical safety glasses.

**Skin Protection:** Use gloves and protective clothing.

**9. Physical And Chemical Properties**

<b>Physical State:</b>	Aerosol
<b>Appearance:</b>	Clear liquid
<b>Odour:</b>	Slight hydrocarbon odour
<b>Odour Threshold:</b>	Not Determined
<b>Boiling Point (liquid):</b>	~ 100 °C
<b>Freezing point:</b>	~ zero °C
<b>Vapour Density (Air = 1):</b>	> 1
<b>Specific Gravity (Liquid):</b>	0.98
<b>Specific Gravity (Aerosol):</b>	0.92 @ 25°C
<b>Vapour Pressure (psia):</b>	53 @ 21°C
<b>Evaporation Rate:</b>	<1 (n-Butyl Acetate = 1)
<b>pH:</b>	8- 8.5
<b>Melting point:</b>	Not available
<b>Solubility in Water:</b>	Soluble

**10. Stability And Reactivity**

**Chemical Stability:** Stable at normal temperature and pressures.

**Incompatible Materials:** Strong oxidising agents and strong acids.

**Hazardous Products of Decomposition:** In combustion emits toxic fumes.

**Hazardous Polymerization:** No polymerization is expected.

**11. Toxicological Information**

**Effects of Acute Exposure:** May cause defatting of skin.

**Effects of chronic exposure:** The solvents listed have been reported to affect the central nervous system.

**Carcinogenicity:** Non-carcinogenic.

**Reproductivity:** None known.No adverse reproductive effects are anticipated.

**Teratogenicity:** 2-butoxyethanol is a suspected tetratogen.

**Mutagenicity:** No mutagenicity.

**Sensitization:** No sensitizing.

**Synergistic products:** None known.

**Acute Toxicity:**

Isobutane:

LC50 Rat Inhalation: 285,000 ppm (4hrs)

Propane:

LC50 Rat Inhalation:121,903 ppm (4hrs)

2-Butoxyehanol:

LD50 Rat Oral: 470 mg/kg, Dermal: 220 mg/kg; LC50 Rat Inhalation: 450 ppm

Surfactants:

LC50 Rat Inhalation: 2,000 mg/kg

**12. Ecological Information**

Readily absorbed into soil. Product exceeding concentrations of approved limits should not be released into ground, storm drains, sewers or any body of water as some components of this product is toxic to aquatic organisms and can cause environmental damage.

**13. Disposal Considerations**

Don't puncture or incinerate containers, even when empty. Dispose in accordance with local, provincial and federal regulations.

**14. Transport Information**

**Ground:** Consumer Commodity, ORM-D.

**Air:** Cannot be shipped by air.

**Sea:** AEROSOLS, UN# 1950, Class 2.1.

**15. Regulatory Information****CANADA**

WHMIS Classification: B5: Flammable Aerosol, 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.  
HMIS: Health 2-(slight), Fire 1- (Minimal), Reactivity 0-(minimal).

**16. Other Information****Abbreviations:**

ACGIH	American Conference of Governmental Industrial Hygienists
CAS	Chemical Abstract Service
PEL	Permissible Exposure Limit
TLV	Threshold Limit Value
WHMIS	Workplace Hazardous Materials Information System
VOC	Volatile Organic Compounds
N/Av	Not Available
N/E	Not Established
N/Ap	Not Applicable

**Disclaimer:**

This product has been classified in accordance with the hazard criteria of the CPR and the MSDS contains all the information required by the CPR. **This MSDS is valid for three years.**

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