



# PuffUp

## SECTION 1. IDENTIFICATION

<b>Product Identifier</b>	PuffUp
<b>Other Means of Identification</b>	Polyurethane Straw Foam
<b>Recommended Use</b>	Polyurethane Foam Sealant.
<b>Restrictions on Use</b>	None known.
<b>Manufacturer/Supplier Identifier</b>	Brodi Specialty Products Ltd, 1-3175 14th Avenue, Markham, Ontario, L3R 0H1, Canada, (905) 475 6084, www.brodi.com
<b>Supplier Identifier</b>	Brodi Specialty Products Ltd, 1-3175 14th Avenue, Markham, Ontario, L3R 0H1, Canada, (905) 475 6084, www.brodi.com
<b>Emergency Phone No.</b>	Infotrac 24 Hour Emergency Tel, (800) 535-5053
<b>Date of Preparation</b>	January 27, 2017

## SECTION 2. HAZARD IDENTIFICATION

### Classification

Flammable aerosol - Category 1; Gas under pressure - Compressed gas; Acute toxicity (Inhalation) - Category 4; Skin irritation - Category 2; Eye irritation - Category 2A; Respiratory sensitization - Category 1; Skin sensitization - Category 1; Specific target organ toxicity (single exposure) - Category 3; Specific target organ toxicity (repeated exposure) - Category 2

### Label Elements



Signal Word:

Danger

### Hazard Statement(s):

- Extremely flammable aerosol.
- Pressurized container: may burst if heated.
- Causes skin irritation.
- May cause an allergic skin reaction.
- Causes serious eye irritation.
- May cause allergy or asthma symptoms or breathing difficulties if inhaled.
- May cause respiratory irritation.
- Suspected of causing cancer.
- May cause damage to organs through prolonged or repeated exposure.

## Precautionary Statement(s):

### Prevention:

Keep away from heat, sparks, open flames, and hot surfaces. – No smoking.

Do not spray on an open flame or other ignition source.

Do not pierce or burn, even after use.

Avoid breathing dust/fume/gas/mist/vapours/spray.

Use only outdoors or in a well-ventilated area.

Wear eye protection/face protection.

Wear protective gloves.

Wash hands and skin thoroughly after handling.

IF INHALED: Remove person to fresh air and keep comfortable for breathing.

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do.

Continue rinsing.

### Storage:

Store in a well-ventilated place. Keep container tightly closed.

Protect from sunlight. Do not expose to temperatures exceeding 50 °C/122 °F.

### Disposal:

Dispose of contents and container in accordance with local, regional, national and international regulations.

### Other Hazards

None known.

## SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Mixture:

Chemical Name	CAS No.	%	Other Identifiers	Other Names
Proprietary Polyol Blend	Not Available	60.0-100.0		
Polymethylene polyphenyl isocyanate	9016-87-9	5.0-10.0	Diphenylmethane diisocyanate, isomers and homologues	
4,4'-Methylenediphenyl diisocyanate	101-68-8	5.0-10.0		
Dimethyl ether	115-10-6	3.0-7.0	Dimethyloxide	
Isobutane	75-28-5	3.0-7.0	2- methylpropane	
Propane	74-98-6	1.0-5.0	Dimethylmethane	

### Notes

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to the health or the environment and hence require reporting in this section.

## SECTION 4. FIRST-AID MEASURES

### First-aid Measures

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### **Inhalation**

Remove source of exposure or move to fresh air. If breathing is difficult, trained personnel should administer emergency oxygen if advised to do so by Poison Centre or doctor.

### **Skin Contact**

Wash gently and thoroughly with lukewarm, gently flowing water and mild soap for 5 minutes. If skin irritation or a rash occurs, get medical advice or attention.

### **Eye Contact**

Immediately rinse the contaminated eye(s) with lukewarm, gently flowing water for 15-20 minutes, while holding the eyelid(s) open. Immediately call a Poison Centre or doctor.

### **Ingestion**

Do not induce vomiting. Immediately call a Poison Centre or doctor.

### **First-aid Comments**

If exposed or concerned, get medical advice or attention.

### **Most Important Symptoms and Effects, Acute and Delayed**

If inhaled and/or on skin: in sensitized people, contact with a very small amount of product can cause an allergic reaction. Symptoms include redness, rash, itching and swelling. This reaction can spread from the hands or arms to the face and body. Repeated exposure will make the reaction worse. Respiratory sensitizer. May cause asthma or an asthma-like reaction in some people.

### **Immediate Medical Attention and Special Treatment**

#### **Target Organs**

Skin, respiratory system.

#### **Special Instructions**

Not applicable.

#### **Medical Conditions Aggravated by Exposure**

None known.

## **SECTION 5. FIRE-FIGHTING MEASURES**

### **Extinguishing Media**

#### **Suitable Extinguishing Media**

Carbon dioxide, dry chemical powder, appropriate foam, water spray or fog.

#### **Unsuitable Extinguishing Media**

None known.

### **Specific Hazards Arising from the Product**

Extremely flammable gas. Can easily ignite. Can readily form explosive mixture with air at room temperature. In a fire, the following hazardous materials may be generated: very toxic carbon monoxide, carbon dioxide; toxic halogenated compounds; extremely hazardous hydrogen cyanide; corrosive, oxidizing nitrogen oxides; corrosive hydrogen chloride.

### **Special Protective Equipment and Precautions for Fire-fighters**

Fight fire from a safe distance or a protected location. Use water spray to dilute spills to non-flammable mixtures. Use water spray to flush spills away from ignition sources.

Fire-fighters may enter the area if positive pressure SCBA and full Bunker Gear is worn.

## **SECTION 6. ACCIDENTAL RELEASE MEASURES**

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

Increase ventilation to area or move leaking container to a well-ventilated and secure area. Eliminate all ignition sources. Use grounded, explosion-proof equipment. Use the personal protective equipment recommended in Section 8 of this safety data sheet.

### **Environmental Precautions**

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It is good practice to prevent releases into the environment. Do not allow into any sewer, on the ground or into any waterway.

#### Methods and Materials for Containment and Cleaning Up

Stop or reduce leak if safe to do so. Collect using shovel/scoop or approved HEPA vacuum and place in a suitable container for disposal.

#### Other Information

Report spills to local health, safety and environmental authorities, as required.

## SECTION 7. HANDLING AND STORAGE

### Precautions for Safe Handling

Do not breathe in this product. Prevent all skin contact. Do not get in eyes, on skin or on clothing. Do not swallow. Only use where there is adequate ventilation. Avoid release to the environment. Eliminate heat and ignition sources such as sparks, open flames, hot surfaces and static discharge. Post "No Smoking" signs. Do not spray on an open flame or other ignition source. Do not pierce or burn container, even after use.

### Conditions for Safe Storage

Store in an area that is: cool, temperature-controlled, dry, well-ventilated, out of direct sunlight and away from heat and ignition sources.

## SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

### Control Parameters

Chemical Name	ACGIH TLV®		OSHA PEL		AIHA WEEL	
	TWA	STEL	TWA	Ceiling	8-hr TWA	TWA
Polymethylene polyphenyl isocyanate	Not established	0.005 ppm	Not established	0.02 ppm	Not established	Not established
Dimethyl ether	Not established	Not established	Not established	Not established	1000 ppm	Not established
Isobutane	Not established	1000 ppm	Not established	Not established	Not established	Not established
Propane	Not established	Not established	1000 ppm	Not established	Not established	Not established
4,4'-Methylenediphenyl diisocyanate	0.005 ppm	0.005 ppm	Not established	0.02 ppm	Not established	Not established

### Appropriate Engineering Controls

Exhaust directly to the outside, taking any necessary precautions for environmental protection.

### Individual Protection Measures

#### Eye/Face Protection

Wear chemical safety goggles.

#### Skin Protection

Wear chemical protective clothing e.g. gloves, aprons, boots.  
Butyl rubber.

#### Respiratory Protection

Not usually required when working with small quantities.

## SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

### Basic Physical and Chemical Properties

**Appearance** Light amber viscous liquid.

**Odour** Musty

**Odour Threshold** Not available

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<b>pH</b>	Not applicable
<b>Melting Point/Freezing Point</b>	Not applicable (melting); Not applicable (freezing)
<b>Initial Boiling Point/Range</b>	Not applicable
<b>Flash Point</b>	Not applicable
<b>Evaporation Rate</b>	Not available
<b>Flammability (solid, gas)</b>	Flammable gas.
<b>Upper/Lower Flammability or Explosive Limit</b>	Not available (upper); Not available (lower)
<b>Vapour Pressure</b>	345 kPa
<b>Vapour Density (air = 1)</b>	Not available
<b>Relative Density (water = 1)</b>	1.1 at 25 °C (77 °F)
<b>Solubility</b>	Insoluble in water; Not available (in other liquids)
<b>Partition Coefficient, n-Octanol/Water (Log Kow)</b>	Not available
<b>Auto-ignition Temperature</b>	Not available
<b>Decomposition Temperature</b>	Not applicable
<b>Viscosity</b>	Not available (kinematic); Not available (dynamic)
<b>Other Information</b>	
<b>Volatile Organic Content</b>	165 g/L (Calculated less water and exempt solvents)

## SECTION 10. STABILITY AND REACTIVITY

### Reactivity

None known.

### Chemical Stability

Normally stable.

### Possibility of Hazardous Reactions

Reacts in the presence of oxidizing agents. May catch fire.

### Conditions to Avoid

Heat. High temperatures. Open flames, sparks, static discharge, heat and other ignition sources. Incompatible materials.

### Incompatible Materials

Reacts violently with: strong oxidizing agents (e.g. perchloric acid).

Not corrosive to metals.

### Hazardous Decomposition Products

Very toxic carbon monoxide, carbon dioxide; toxic halogenated compounds; corrosive hydrogen chloride; extremely hazardous hydrogen cyanide; corrosive phosphorous oxides; corrosive, oxidizing nitrogen oxides.

## SECTION 11. TOXICOLOGICAL INFORMATION

Information presented below is for the entire product, unless otherwise specified.

### Likely Routes of Exposure

Inhalation.

Skin contact.

Skin absorption.

Eye contact.

Ingestion.

### Acute Toxicity

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Chemical Name	LC50	LD50 (oral)	LD50 (dermal)
Polymethylene polyphenyl isocyanate	11 mg/L	> 10000 mg/kg (rat)	> 10000 mg/kg (rabbit)
Dimethyl ether	164000 ppm (rat) (4-hour exposure)		
Isobutane	368000 ppm (mouse)		
Propane	> 8000000 ppm (rat)		
4,4'-Methylenediphenyl diisocyanate	490 mg/m <sup>3</sup> (rat) (4-hour exposure)	> 2000 mg/kg (rat)	

#### Skin Corrosion/Irritation

Human experience and animal tests show moderate or severe irritation.

#### Serious Eye Damage/Irritation

Human experience and animal tests show serious eye damage.

#### STOT (Specific Target Organ Toxicity) - Single Exposure

##### Inhalation

May be harmful based on human experience and animal tests.

##### Skin Absorption

May be harmful based on human experience and animal tests.

##### Ingestion

Harmful based on human experience and animal tests.

#### Aspiration Hazard

Not known to be an aspiration hazard.

#### STOT (Specific Target Organ Toxicity) - Repeated Exposure

May cause irritation of the respiratory system. Respiratory tract injury has been observed.

#### Respiratory and/or Skin Sensitization

Respiratory sensitizer. Human experience shows severe asthma or asthma-like symptoms (respiratory sensitization) in a substantial proportion of people exposed at work. Skin sensitizer. Human experience shows allergic skin reactions (skin sensitization) in a substantial proportion of people exposed at work.

#### Carcinogenicity

Chemical Name	IARC	ACGIH®	NTP	OSHA
Polymethylene polyphenyl isocyanate	Group 3	Not designated	Not Listed	Not Listed
Dimethyl ether	Not Listed	Not designated	Not Listed	Not Listed
Isobutane	Not Listed	Not designated	Not Listed	Not Listed
Propane	Not Listed	Not designated	Not Listed	Not Listed
4,4'-Methylenediphenyl diisocyanate	Group 3	Not designated	Not Listed	Not Listed

Reasonably anticipated human carcinogen. (Polymethylene polyphenyl isocyanate)

#### Key to Abbreviations

IARC = International Agency for Research on Cancer. Group 3 = Not classifiable as to its carcinogenicity to humans.

#### Reproductive Toxicity

##### Development of Offspring

No information was located.

##### Sexual Function and Fertility

No information was located.

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**Effects on or via Lactation**

No information was located.

**Germ Cell Mutagenicity**

No information was located.

**Interactive Effects**

No information was located.

**SECTION 12. ECOLOGICAL INFORMATION**

Environmental information was not located.

**Persistence and Degradability**

No information was located.

**Bioaccumulative Potential**

No information was located.

**Mobility in Soil**

No information was located.

**Other Adverse Effects**

There is no information available.

**SECTION 13. DISPOSAL CONSIDERATIONS****Disposal Methods**

Dispose of contents and container in accordance with local, regional, national and international regulations. This product and its container must be disposed of as hazardous waste. Do NOT dump into any sewers, on the ground or into any body of water. The container for this product can present explosion or fire hazards, even when emptied. Do not cut, puncture, or weld on or near this container.

**SECTION 14. TRANSPORT INFORMATION**

Regulation	UN No.	Proper Shipping Name	Transport Hazard Class(es)	Packing Group
Canadian TDG	1950	AEROSOLS	2	III
US DOT	1950	AEROSOLS	2	III
IATA (Air)	1950	AEROSOLS	2	III
IMO (Marine)	1950	AEROSOLS	2	III

**Environmental Hazards** Not applicable

**Special Precautions** Not applicable

**Transport in Bulk According to Annex II of MARPOL 73/78 and the IBC Code**

Not applicable

**SECTION 15. REGULATORY INFORMATION****Safety, Health and Environmental Regulations**

None known.

**Canada****Domestic Substances List (DSL) / Non-Domestic Substances List (NDSL)**

All ingredients are listed on the DSL or are not required to be listed.

**CEPA - National Pollutant Release Inventory (NPRI)**

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Part 5. (Isobutane). (Propane). (Dimethyl ether) Part 1A. (Polymethylene polyphenyl isocyanate)

## USA

### Toxic Substances Control Act (TSCA) Section 8(b)

All ingredients are listed on the TSCA Inventory.

### Additional USA Regulatory Lists

California Proposition 65:

This product contains trace amounts of substances, in the form of airborne or unbound particles, known to the State of California to cause cancer or reproductive harm.

Massachusetts, New Jersey, and Pennsylvania Right To Know. (Polymethylene polyphenyl isocyanate). (Phosphoric acid, tris(2-chloro-1-methylethyl) ester). (Dimethyl ether). (Isobutane). (Propane)

SARA Title III - Section 302:

Not applicable.

SARA Title III - Section 311/312:

Acute Health Hazard

Chronic Health Hazard

Fire Hazard

Reactive Hazard

Sudden Release of Pressure Hazard

SARA Title III - Section 313:

MDI and PMDI are subject to the reporting levels established by Section 313 of the Emergency Planning and Community Right-to-Know Act of 1986.

4,4'-Diphenylmethane diisocyanate (CAS# 101-68-8) is listed as Hazardous Air Pollutants (HAPs) designated in CAA

Section 112(b). This product does not contain any Class 1 or Class 2 Ozone depleters.

Polymeric MDI (CAS #9016-87-9) is listed on the following State Hazardous Substance Inventories, Right-to-Know lists

and/or Air Quality/Air Pollutants lists: DE, NJ, MN.

This product contains the following CERCLA reportable substance: 4,4'-Diphenylmethane diisocyanate (CAS# 101-68-8):

RQ- 2,268 kg (5,000 lbs).

## SECTION 16. OTHER INFORMATION

<b>NFPA Rating</b>	<b>Health - 2</b>	<b>Flammability - 3</b>	<b>Instability - 1</b>
<b>SDS Prepared By</b>	Technical Services Department		
<b>Phone No.</b>	519-823-4994		
<b>Date of Preparation</b>	January 27, 2017		
<b>Date of Last Revision</b>	January 29, 2018		
<b>Revision Indicators</b>	Revision 2		
<b>References</b>	CHEMINFO database. Canadian Centre for Occupational Health and Safety (CCOHS). HSDB® database. US National Library of Medicine. Available from Canadian Centre for Occupational Health and Safety (CCOHS). NIOSH Pocket Guide database. National Institute for Occupational Safety and Health. Available from Canadian Centre for Occupational Health and Safety (CCOHS). Registry of Toxic Effects of Chemical Substances (RTECS®) database.		

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Dassault Systèmes/BIOVIA (“BIOVIA”). Available from Canadian Centre for Occupational Health and Safety (CCOHS).

**Disclaimer**

The information herein is given in good faith, but no warranty, express or implied, is made. Product users should make independent judgements of the suitability of this information to ensure proper use and to protect the health and safety of employees.