

# MATERIAL SAFETY DATA SHEET

Winter Foam

FILE NO.:  
MSDS DATE: 02/05/2018

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## SECTION 1: PRODUCT AND COMPANY IDENTIFICATION

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**PRODUCT NAME:** PU Expansion Gun Foam -20C 680gr (24oz)

**DISTRIBUTOR:** TOOLWAY INDUSTRIES LTD.

**ADDRESS:** 280 Hunter's Valley Road, Woodbridge, ON, Canada L4H 3V9.  
**PHONE:** (905) 326-5450

**EMERGENCY PHONE:** 1 (800) 535 5053

**PRODUCT USE:** Window Frame Fixing and Filling, Insulation and Sound-Proof, Insecticide and other hole filling.

**PREPARED BY:** TOOLWAY INDUSTRIES LTD.

**SECTION 1 NOTES:** NONE

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## SECTION 2: HAZARDS IDENTIFICATION

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### Classification of Harmful, risk:

Flammable gas:	Class 1
High-pressure gas:	Liquefied gas
Acute-Toxicity (inhale: gas):	Class 2
Acute-Toxicity (inhale: dust/mist):	Class 3
SKIN CORROSION / IRRITATION:	Class 2
Serious eye damage / eye irritation:	Class 2
Respiratory sensitization:	Class 1
Skin sensitization:	Class 1
Carcinogenic:	Class 1A
Reproductive toxicity:	Class 2
Specific target organ toxicity (Repeated Exposure):	Class 1

### Warning Signs:

#### Label elements:



**The Signal Word: Danger**

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## Risk phrases:

Extremely flammable aerosol  
High-pressure gases are included: Can be exploded if heated.  
Causes skin irritation  
May cause an allergic skin reaction  
Causes serious eye irritation  
Causes damage fertility or the unborn child  
Prolonged or repeated exposure may cause damage to the body.

## Precautionary Statements:

### Prevention:

Obtain the manual before use.  
Do not handle until all safety precautions have been read and understood  
Keep away from heat, sparks, flame, high temperature: NO SMOKING  
Take anti-static measures  
Avoid inhalation of mists, fumes, vapors, gases, sprays.  
Wash the treated area thoroughly after handling.  
Do not smoke, drink or eat when using this product.  
Please treat only outdoors or in a well-ventilated area.  
Wear protective gloves, protective clothing, safety glasses, face shield.  
Wear appropriate personal protective equipment

### Response:

If swallowed, call a doctor immediately  
IF ON SKIN: Wash with plenty of soap and water.  
If skin or hair is contaminated, remove all clothing off or wash skin with water.  
IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.  
Do not induce vomiting.  
If skin irritation occurs, obtain medical attention, advice please.  
If eye irritation persists, please seek medical attention and advice.  
Take off and contaminated clothing and wash before re-use.  
In case of gas-leakage fire, do not try to turn off the fire if you cannot stop the leakage safely.  
Please remove all sources of ignition if possible to safely handle

### Store:

Store in a well-ventilated place and Keep cool  
Keep container well-ventilated place with being tightly closed.

### Disposal:

Dispose of the contents and container in accordance with the relevant laws and regulations

### NFPA hazard codes :

Material	Health	Fire	Reactivity
Butane	1	4	0
Bis(p-isocyanatophenyl) methane	3	1	1
Di-methyl ether	2	4	1
Propane	1	4	0

**SECTION 2 NOTES: NONE**

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## SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

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**General chemical description:**

**Base substances of preparation:**

**Declaration of the ingredients**

INGREDIENT	CAS NO	Percentage(%)
Butane	106-97-8	5~ 10 %
bis(P-isocyanatophenyl)methane	101-68-8	5~10 %
di-methyl ether	115-10-6	5~10 %
Propane	74-98-6	1~5%
Prepolymer Mixture	-	55~65%

**SECTION 3 NOTES: NONE**

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## SECTION 4: FIRST AID MEASURES

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### EYES:

Wash eyes cautiously with water for several minutes.  
Remove contact lens.  
Continue Rinsing.  
If eye irritation persists, seek medical advice.

### SKIN:

Wash eyes cautiously with water for several minutes.  
Remove contact lens.  
Continue Rinsing.  
If eye irritation persists, seek medical advice.

### INGESTION:

If there is a risk of exposure or exposure, obtain medical attention, advice please.  
Does not perform mouth-to-mouth resuscitation if swallowed or inhaled.  
Use appropriate medical respiratory apparatus.

### INHALATION:

By inhalation, if breathing is difficult, move to fresh air and keep at rest in a position comfortable for breathing.  
Immediately, see a doctor.  
If exposed to the excessive amount of dust or fume, remove with clean air.  
If cough or other symptoms, take a medical attention.

### Indication of any immediate medical attention and special treatment needed

When exposed, contact the medical team and take a special first-aid measures.  
Fully aware of the substance and Take precautionary measures.

**SECTION 4 NOTES: NONE**

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## SECTION 5: FIRE-FIGHTING MEASURES

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### Extinguishing media

Suitable extinguishing media: Alcohol foam, carbon dioxide, water spray jet, Fine water spray  
Extinguishment by smothering use dry sands or soils.

### Speicail hazards arising from the substance or mixture

#### In case of fire, occurring hazardous substances:

CO, HCL, and other small quantity's HCN, HF, HBR gas

Extremely Flammable gas

High-pressure gas is included: If heated, it can be exploded.

If heated, the container can be exploded.

By heat, spark, and flames, it can be easily ignited.

Some can burn but does not ignite easily.

Vapors can move until the ignition source and have the possibility of the flash back.

The cylinders exposed to fire can emit a flammable gas.

Non-flammable materials itself does not burn, but decomposition by heating can cause the corrosive, toxic fumes.

Some leave a flammable residue after evaporation, so beware.

### Advice for firefighters

Wear protective equipment, and equip self-contained breathing equipment.

Please extinguish by maintaining a safe distance out of the area.

Please move containers from fire area if without risk.

### SECTION 5 NOTES: NONE

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## SECTION 6: ACCIDENTAL RELEASE MEASURES

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### Personal precautions, protective equipment and emergency procedures

Banning the persons who do not wear protective equipment.

Ensure adequate ventilation

Avoid contact to skin or eye (use protective goggle)

### Environmental precautions

Do not empty into drains / surface water / ground water

### Methods and material for containment and cleaning up

Do not remove chemically but remove mechanically.

Handling contaminated material as waste.

### SECTION 6 NOTES: NONE

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## SECTION 7: HANDLING AND STORAGE

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### Precautions for safe handling

Keep a well-ventilated workshop.

Avoid sources of ignition such as open flames, sparks.

Turn off electrical equipment.

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NO Smoking  
NO Welding  
Do not empty into drains

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## Conditions for safe storage, including any incompatibilities

Regulations shall apply to aerosol storage.  
Adequate ventilation facilities to warehouse and workshop  
Keep in a cool, dry place.  
Should be kept at or below 30 °C  
Do not store with flammable liquids.  
Do not store with food, and other consumer goods  
Storage Class (VCI-Storage Class): 2B (BRD)

## SECTION 7 NOTES: NONE

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## SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

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### Control Parameters

#### Exposure limits of chemicals, Biological exposure limits:

Local regulation:

Butane	TWA – 800 ppm 1900mg/m <sup>3</sup>
bis methane	TWA – 0.005 ppm 0.055mg/m <sup>3</sup>
Dimethyl ether	No data
Propane	No data

ACGIHH regulation:

Butane	TWA 1000 ppm
bis methane	TWA 0.005 ppm
Dimethyl ether	No data available
Propane	No data available
Biological exposure limit	No data available

### Appropriate Engineering controls

Please use process isolation, local exhaust, or other engineering controls to adjust the air levels below the exposure guidelines.

### Personnel Protective Equipment

Engineering Controls: Check Sufficient Exhaust State

Respiratory Protection: Use appropriate respirator when there is not enough of an exhaust ventilator

Eye Protection: Use protective goggle

Hand Protection: Use appropriate protective gloves

Skin Protection: Wear Protective costumes

Body Protection: Wash hands before break and after work

Avoid skin contact

Do not eat, drink or inhale during the work

Immediately take off the contaminated costumes.

Do not inhale the alcohol during the work.

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Overseas exposure standards

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Chemical Name	OSHA
Dipenylmethane-4, 4' - diisocyanate	0.020 ppm ceiling
Higher Oligomers of MDI	0.200 mg/m <sup>3</sup>
Dimethylether (DME)	1,000 ppm TWA

## SECTION 8 NOTES: NONE

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## SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

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### Information on basic physical and chemical properties:

Appearance	Liquid Pink Color
Odor	Musty smell slightly during rigiding.
Ph	No data available
Initial boiling point	No data available
Flash point	- 41°C(DME), - 60 °C(Butane)/ - 104.4 °C(Propane)
Explosive	Heated to above 50 °C the vessel may be ruptured. The contents has explosive and combustibile, can be formed the mixture. Avoid sources of ignition and open flame, keep the temperature displayed on the container.
Decomposition temperature	No data available
Vapor pressure	about 5,000 mbar (20 °C), about 10,000 mbar (50 °C)
Density(20 °C)	1.126 g/cm <sup>3</sup>
Bulk density	No data available
Viscosity (20 °C)	1,000cps( Brookfield Viscometer)
Viscosity(kinematic)	No data available
Explosive properties	No data available
Solubility (qualitative)	Non - soluble
Solidification temperature	No data available
Melting point	No data available
Volatility	
Falammability	No data available
Auto-ignition temperature	328 °C(DME), 430 °C (Butane), 450 °C (Propane)
Explosive limits	Butane: 1.8 % ~ 8.4 % Propane: 2.1% ~ 9.5 % DME: 3.4% ~ 18 % Vapor Mixture: about 6% -
Partition coefficient: n-octanol/water	No data available
Evaporation rate	No data available
Vapor density	No data available
Oxidizing properties	No data available
Molecular Weight	No data available

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## Other information

No data available / Not applicable

## SECTION 9 NOTES: NONE

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## SECTION 10: STABILITY AND REACTIVITY

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### Conditions to avoid:

If used in accordance with the guidance, no decomposition

### Materials to avoid:

CO<sub>2</sub> occurs with the reaction of water. Within a sealed container, reacts with amines, alcohols, acids, alkalis which increased the pressure.

### Hazardous decomposition products:

No case of the intended purpose

## SECTION 10 NOTES: NONE

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## SECTION 11: TOXICOLOGICAL INFORMATION

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### Information on the likely routes of exposure:

Explosion due to some shock to the container may bring burst of the reactants.

Can be harmful in the liquid state but when after solidifying, it is harmless to the body.

Avoid strong shock to the container.

### Health hazard information:

Acute Toxicity: No data available

Skin corrosive or irritant: Irritation of the mucous membranes and skin

Serious eye damage or irritant: Cause damage to the cornea inflammation and restitution

Respiratory sensitization: Sense organs may be more sensitive by inhalation

Carcinogenic: No data available

Germ cell mutagenicity: No data available

Reproductive toxicity: No data available

## SECTION 11 NOTES: NONE

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## SECTION 12: ECOLOGICAL INFORMATION

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Ecotoxicity: This product is considered practically non-toxic to aquatic organisms such as fish and bacteria.

Persistence and degradability: The biodegradability of this product is very low. When it becomes solid, difficult to decompose to any material.

Bio-concentration: Prevent not to drain to the wastewater, soil, surface water.

Mobility in soil:

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Other hazardous effect: When it is solidified as a result of solid-state, it is harmless to humans or creatures.

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## SECTION 12 NOTES: NONE

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## SECTION 13: DISPOSAL CONSIDERATIONS

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Waste treatment methods: Dispose of waste and residues in accordance with local authority requirements.

Recommended disposal: Incinerated, or disposed of in accordance with relevant laws.

Disposal precautions: Should be discarded after subtracting the compressed gas in the container completely.

## SECTION 13 NOTES: NONE

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## SECTION 14: TRANSPORT INFORMATION

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### Transport over land ADR/RID:

Class:	2
Number/Letter:	10b1
2nd numbering of tanks panel:	1950
Designation of goods:	1950 Aerosol

### Transport over sea IMDG:

Class :	2.1
UN-No. :	1950
PG/EmS/MFAG:	/2-13/a
Proper shipping name:	Aerosol (Flammable Gas Label)

### Transport by air ICAO/IATA) :

Class:	2.1
UN/ID No:	1950
PG:	II
Pkg-Instr. (Passenger air):	203
Pkg-Instr. (Cargo air. Only):	203
Proper shipping name:	Aerosol, flammable Gas Label

### Inland Trucking:

Class:	2
Number/Letter:	10b1

## SECTION 14 NOTES: NONE

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## SECTION 15: REGULATORY INFORMATION

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### Regulated by the Occupation Safety and Health Act:

In accordance with Occupational Health and Safety Act, this product is the object which should be written and placed with applications and warning signs and in case of transfer and provision, this



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material also transferable or to be provided.

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## Regulated by harmful chemical Substances:

These products are target materials for the report by the High-Pressure Gas Safety Control and warning signs.

Regulated by the local and foreign country's Act:

Germany:

Hazardous Symbols: F+, High-Flammable Materials

Xn, Hazardous Materials

Components: Diphenylmethane-4, 4' – di-isocyanate (MDI)

Hazardous Warnings: R 36/37/38 Irritant to eye, respiratory, skin

Safety Warnings:

- 1) Keep out of reach of the children
- 2) In case of eye contact, wash immediately with a large amount of water and seek a doctor's help
- 3) Wear an appropriate glove, goggle, facial protector.
- 4) If exhaust insufficient, suitable respiratory equipment should be worn.
- 5) Accident, or if there is a risk, seek medical help immediately.
- 6) If swallowed, seek medical help immediately and show the product container or label.

Additional Marks: Including Isocyanate. Comply with the manufacturer's instructions.

## SECTION 15 NOTES: NONE

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## SECTION 16: OTHER INFORMATION

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This information is based on our current level of knowledge and relates to the product in the state in which it is delivered. It is intended to describe our products from the point of view of safety requirements and is not intended to guarantee any particular properties.