



Reviewed: August 2025

## MATERIAL SAFETY DATA SHEET PU FIRE RETARDENT B2 Foam Spray

### Section1: CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

**Trade Name:** PU Fire Retardant B1 foam spray

**Product uses:** Polyurethane foam caulking agent / Tamping / Stemming / Ventilation Sealing

**Company Identification:** SIBAMBENE MINING SUPPLIES

**Reg number:** 2005/175907/23

**Vat number:** 479 025 0072

**Address:** P.O Box 569 / 31 Lange Street, Lydenburg 1120

**Tel:** +27 13 235 2385/6

**Website:** www.sibambene.co.za

**Information in case of emergency:**

**Contact person:** Jaap Bam **Tel:** +27 83 628 2243

**Contact person:** Hanro Bam **Tel:** +27 79 511 3449

### Section2: HAZARDS IDENTIFICATION

**EU-GHS/CLP(No 1272/2008) Classification of the substance or Mixture**

PHYSICAL AND CHEMICAL HAZARDS: Non Flam. Aerosol 1 - H222

HEALTH HAZARDS: Acute Tox. 4 - H332;Skin Irrit. 2 - H315;Eye Irrit. 2 - H319;Resp.Sens. 1 - H334;Skin Sens. 1 - H317;Carc. 2 - H351;STOT SE 3-H335;STOT RE 2 - H373

**Classification according to European Directive 67/548/EEC as amended.**

Xn;R20, R48/20. Carc. Cat. 3;R40. R42/43. Xi;R36/37/38. F+;R12.

**GHS/CLP(1272/2008) Label Elements**

**Hazards pictograms**



**Signal Word Danger! Hazard**

**Statements**

H222 Non-Flammable aerosol.

H315 Causes skin irritation on sensitive skin

H317 May cause an allergic skin reaction.



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H319 Causes eye irritation

Due to **inadequate** ventilation the following health hazard may occur

H332 Harmful if inhaled.

H335 May cause respiratory irritation.

H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.

H373 May cause damage to organs through prolonged or repeated exposure.

### Precautionary Statements

#### Prevention

P210 Keep away from heat/sparks/open flames/hot surfaces. – No smoking.

P285 In case of **inadequate** ventilation wear respiratory protection.

P280 Wear protective gloves, eye and face protection.

P305+351+338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P313 Get medical advice/attention.

P342+311 If experiencing respiratory symptoms: Call a POISON CENTRE or doctor/physician.

#### Response

P211 Do not spray on an open flame or other ignition source

P251 Pressurized container: Do not pierce or burn, even after use. P260 Do not breathe vapour/spray.

P304+341 IF INHALED: If breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing.

P333+313 If skin irritation or rash occurs: Get medical advice/attention.

#### Storage

P410+412 Protect from sunlight. Do not expose to temperatures exceeding 50 °C/122°F.



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### Section3: COMPOSITION / INFORMATION ON INGREDIENTS

| Substance                                          | CAS#      | EC#       | Weight% | Classification according to Regulation (EC) No 1272/2008 (CLP)                                                   |
|----------------------------------------------------|-----------|-----------|---------|------------------------------------------------------------------------------------------------------------------|
| 4,4'-methylenediphenyl Diisocyanate                | 101-68-8  | 202-966-0 | 20      | Skin Irrit. 2<br>Skin sen.1<br>Eye Irrit.2<br>Acute Tox. 4<br>Resp. Sens. 1<br>STOT SE 3<br>Carc. 2<br>STOT RE 0 |
| Isocyanic acid,<br>polymethylenepolyphenyleneester | 9016-87-9 | 618-498-9 | 25      | ---                                                                                                              |
| Dimethyl Ether (DME)                               | 115-10-6  | 204-065-8 | 40      | Press. Gas<br>Flam. Gas 1                                                                                        |
| Butane                                             | 106-97-8  | 203-448-7 | 9       | Press. Gas<br>Flam. Gas 1                                                                                        |
| Propane                                            | 74-98-6   | 200-827-9 | 6       | Press. Gas<br>Flam. Gas 1                                                                                        |

Ingredients not listed are classified as non-hazardous or at a concentration below reportable levels.

### Section4: FIRST AID MEASURES

#### 4.1 DESCRIPTION OF FIRST AID MEASURES

General notes: This product should not present a health hazard when used under reasonable conditions.

**Following inhalation:** Remove victim to fresh area.

**Following skin contact:** Wash with water and soap.

**Following eye contact:** Flush eyes with water.

**Following ingestion:** Do not induce vomiting. Get medical attention.

**Self-protection of first aider:** Use proper personal protective equipment as indicated in Section 8.

#### 4.2 MOST IMPORTANT SYMPTOMS AND EFFECTS, BOTH ACUTE AND DELAYED:

See Section 11 for more information.

#### 4.3 INDICATION OF ANY IMMEDIATE MEDICAL ATTENTION AND SPECIAL TREATMENT NEEDED:

No data available



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### Section5: FIRE FIGHTING MEASURES

#### 5.1 EXTINGUISHING MEDIA:

**Suitable extinguishing media:** Use extinguishing agent suitable for local conditions and the surrounding environment. Such as dry powder, CO<sub>2</sub>

**Unsuitable extinguishing media:** No data available.

#### 5.2 SPECIAL HAZARDS ARISING FROM THE SUBSTANCE OR MIXTURE:

**Hazardous combustion products:** No data available.

**5.3 ADVICE FOR FIREFIGHTERS:** As in any fire, wear positive pressure self-contained breathing apparatus (SCBA). Keep unauthorised personnel away. Stay upwind. Keep out of low areas. Ventilate closed spaces before entering.

### Section6: ACCIDENTAL RELEASE MEASURES

#### Personal Precautions

Wear protective clothing as described in Section 8 of this safety data sheet.

#### Environmental Precautions

Do not discharge into drains, water courses or onto the ground.

#### Spill Clean Up Methods

When dealing with a spillage, please consult the section relating to suitable protective measures. Wear necessary protective equipment. Stop leak, if possible, without risk. Flush with plenty of water to clean spillage area. Do not contaminate water sources or sewer.

### Section7: HANDLING AND STORAGE

#### Usage Precautions

Persons with impaired lung functions should not handle this preparation. Persons susceptible to allergic reactions should not handle this product. Avoid forming spray/aerosol mists. Avoid inhalation of vapours/spray and contact with skin and eyes. **Ventilate well**, avoid breathing vapours. Use approved respirator **if** air contamination is above accepted level. Use mechanical ventilation in case of handling which causes formation of vapours. Spraying is permitted only in closed systems, spray cabinets or spray boxes with adequate ventilation. Eye wash facilities and emergency shower must be available when handling this product.

#### Storage Precautions

Keep in original container. Store in tightly closed original container, in a dry, cool and well-ventilated place. Storage temperature: <50°C. Keep away from heat, sparks and open flame. Meet the legal requirements. Max. Storage time: 1 year(s)

**Suitable packaging material:** Aerosol

**Packing Group:** II

## MATERIAL SAFETY DATA SHEET

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#### Section8: EXPOSURE CONTROLS/PERSONAL PROTECTION

##### EXPOSURE LIMITS

The Following Controls are Recommended for Normal Consumer Use of this Product

Occupational Exposure Limits (OEL's):

| Ingredient Name                         | CAS NO.  | STEL/15min              | TWA/8Hrs                |
|-----------------------------------------|----------|-------------------------|-------------------------|
| 4,4'-Diphenylmethane Diisocyanate (MDI) | 101-68-8 | 0.2 mg/m <sup>3</sup>   | 0.05 mg/m <sup>3</sup>  |
| Dimethyl Ether (DME)                    | 115-10-6 | --                      | 1,910 mg/m <sup>3</sup> |
| Butane                                  | 106-97-8 | 2,350 mg/m <sup>3</sup> | 1,900 mg/m <sup>3</sup> |
| Propane                                 | 74-98-6  | --                      | 1,800 mg/m <sup>3</sup> |

##### Engineering Measures

Provide sufficient ventilation during operations which cause vapour formation. Provide adequate ventilation, including appropriate local extraction, to ensure that the defined occupational exposure limit is not exceeded. **Respiratory Equipment**

Respiratory protection must be used if air contamination exceeds unacceptable level. It is recommended to use respiratory equipment with combination filter, type A2/P2. EN14387 When spraying use suitable air-supplied respirator.

##### Hand Protection

Use protective gloves made of: Rubber, neoprene or PVC. The most suitable glove must be chosen in consultation with the gloves supplier, who can inform about the breakthrough time of the glove material.

##### Eye Protection

Wear approved chemical safety goggles where eye exposure is reasonably probable. EN166

##### Other Protection

Wear appropriate clothing to prevent any possibility of liquid contact and repeated or prolonged vapour contact.

##### Hygiene Measures

DO NOT SMOKE IN WORK AREA! Wash hands at the end of each work shift and before eating, smoking and using the toilet. Promptly remove any clothing that becomes contaminated. Wash promptly if skin becomes contaminated. When using do not eat, drink or smoke.

##### Environmental Exposure Controls

Residues and empty containers should be taken care of as hazardous waste according to local and national provisions.

##### Protective Equipment:





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### Section9: PHYSICAL AND CHEMICAL PROPERTIES

|                         |                                                                                                  |
|-------------------------|--------------------------------------------------------------------------------------------------|
| Appearance              | Aerosol, Viscous liquid which foams upon release from container as a light to medium grey froth. |
| Odor                    | Slight ether odor during curing stage                                                            |
| Specific Gravity @ 20°C | 1.2                                                                                              |
| Color                   | Yellow                                                                                           |
| VOC                     | 35%                                                                                              |
| Boiling Point           | > 200°F (93.3°C)                                                                                 |
| Solubility in Water     | Insoluble in water                                                                               |
| Flash Point             | 800°F (426.6°C)                                                                                  |
| Flammability            | Non-flammable                                                                                    |
| Vapour Pressure @ 20°C  | Contents under pressure: > 50 psig (345 KPa).                                                    |

### Section10: STABILITY AND REACTIVITY

#### Reactivity

Reacts strongly with strong acids, bases, organic chemicals and certain metal combinations.

#### Chemical stability

Stable under normal temperature conditions.

**Hazardous Polymerization:** Hazardous polymerization will not occur

**Conditions to avoid:** Avoid heat, flames and other sources of ignition. Reacts strongly with strong acids, bases, organic chemicals and certain metal combinations.

#### Incompatible materials

High temperatures generate: Toxic gases/vapours/fumes of: Carbon dioxide (CO<sub>2</sub>). Carbon monoxide (CO). Hydrogen cyanide (HCN).

### Section11: TOXICOLOGICAL INFORMATION

#### Potential Acute Health Effects

Toxic Dose 1 - LD 50: >10000 mg/kg (oral rat)

Toxic Conc. – LC: 50490 mg/l/4h (inh-rat)

#### Inhalation

High concentrations of vapours may irritate respiratory system and lead to headache, fatigue, nausea and vomiting. May cause sensitisation by inhalation.

#### Ingestion

May cause stomach pain or vomiting.



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### Skin Contact

Irritating to skin. Prolonged or repeated exposure may cause severe irritation.

### Eye Contact

Irritation of eyes and mucous membranes.

### Acute Toxicological Data on ingredients

4,4'-Diphenylmethane diisocyanate, CAS: 101-68-8

Toxic Dose 1 - LD 50: 9200 mg/kg [Rat, Oral]; Toxic Dose 2 - LD 50: 2200 mg/kg [Mouse, Oral] Dimethyl ether, CAS: 115-10-6

Toxic Dose 1 - LC 50: 308,000 mg/m<sup>3</sup> [Rat, Inhalation], Toxic Dose 2 - LC 50: 386ppm/30minutes [Mouse, Oral] Butane, CAS: 106-97-8

Toxic Dose 1 - LC 50: 658,000mg/m<sup>3</sup>/4hours [Rat, Inhalation], Toxic Dose 2 - LC 50: 680,000 mg/m<sup>3</sup>/2Hrs. [Mouse, Inhalation].

Propane, CAS: 74-98-6

Toxic Dose 1 - LC 50: 658,000mg/m<sup>3</sup>/4hours [Rat, Inhalation]

## Section12: ECOLOGICAL INFORMATION

### Ecotoxicity Data

LC 50, 96 Hrs, Fish >1000 mg/l;Acute Toxicity - Fish

LC0 96 hours > 1000 mg/l;EC 50, 48 Hrs, Daphnia, >500 mg/l

Acute Toxicity - Aquatic Invertebrates

EC0 > 500 mg/l Daphnia magnaAcute Toxicity - Aquatic Plants

EC0 72 hours 1640 mg/l Scenedesmus subspicatus

### Ecological information on ingredients

4,4'-Diphenylmethane diisocyanate, CAS: 101-68-8

LC50 Rat (male) inhalation 369 mg/cu m/4 h; LC50 Rat (female) inhalation 380 mg/cu m/4 hr. Dimethyl ether, CAS: 115-10-6

LC50 Mouse inhalation 385.94 ppm (30 min);

### Persistence and Degradability

The product is not readily biodegradable.

### Results of PBT and vPvB assessment

This product does not contain any PBT or vPvB substances.

### Bio accumulative Potential

The product does not contain any substances expected to be bio accumulating



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## MATERIAL SAFETY DATA SHEET PU FIRE RETARDENT B2 Foam Spray

### Section13: DISPOSAL CONSIDERATION

#### General Information

Waste is classified as hazardous waste. Disposal to licensed waste disposal site in accordance with the local Waste Disposal Authority.

#### Disposal Methods

Residues and empty containers should be taken care of as hazardous waste according to local and national provisions.

### Section14: TRANSPORT INFORMATION

#### Land transportation (ADR/RID): Proper Shipping

Name: Aerosols, Non-Flammable,

Hazard Class: Class 2.0: GAS

Packing Group(s) II

Limit quantity: 1L

Classification Code: 5F

Transport category: 2.

Air Class: 2

Tunnel restriction code: D

UN/NA ID: UN 1950

Special Provisions: 190 327 344 625

#### Marine transportation (IATA/IMDG):

UN number: UN1950

UN proper shipping name: Aerosols

Transport hazard class(es): 2

Hazard label: 2, see SP63

Special Provisions: 63, 190, 277, 327, 344, 959

Limited quantity: See SP277

EMS: F-D, S-U

Placards:



### Section15: REGULATORY INFORMATION

**15.1 SAFETY, HEALTH AND ENVIRONMENTAL REGULATIONS/LEGISLATION SPECIFIC FOR THE SUBSTANCE OR MIXTURE:** Regulatory information: Reference to local, national, US, EU, CA and international regulations

| CAS No.   | Regulation (EC) No 1272/2008 |
|-----------|------------------------------|
| 101-68-8  | Listed                       |
| 9016-87-9 | Listed                       |
| 115-10-6  | Listed                       |
| 106-97-8  | Listed                       |
| 74-98-6   | Listed                       |

**15.2 Chemical safety assessment:** No Chemical Safety Assessment has been carried out for this substance/mixture by the supplier.



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### Section 16: OTHER INFORMATION

Issue Time: 22 September 2016

Issue Department: Technical Department

Special None HAZARD RATING: 4 - Extreme; 3 - High; 2 - Moderate; 1 - Slight; 0 –

#### HMIS CLASSIFICATION

Health: 4      Flammability: 0  
Reactivity: 2      PPI: B

#### NFPA RATING

Health: 4      Fire: 3  
Reactivity: 2

#### Abbreviation Used

|       |                                                  |
|-------|--------------------------------------------------|
| GHS   | Globally Harmonized System                       |
| LC50  | Half maximal inhibitory Concentration            |
| LD50  | Lethal Dosage 50%                                |
| OEL   | Occupational Exposure Limit                      |
| EC    | European Community                               |
| g/cc  | Grams per Cubic Centimetres                      |
| TWA   | Time weighted Average                            |
| VOC   | Volatile Organic Compound                        |
| WHMIS | Workplace Hazardous Materials Information System |
| STEL  | Short term exposure limit                        |

#### Disclaimer

This information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process. Such information is, to the best of the company's knowledge and belief, accurate and reliable as of the date indicated. However, no warranty guarantee or representation is made to its accuracy, reliability or completeness. It is the user's responsibility to satisfy himself as to the suitability of such information for his own particular use.

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Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution.

Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.