



## SAFETY INFORMATION DATA SHEET

### Reinforced bitumen sheets for roof waterproofing

1 / 7

#### PRELIMINARY REMARKS

*In compliance with current legislation on substances and mixtures, especially Regulation REACH (EC) N° 1907/2006 and Regulation CLP (EC) N° 1272/2008, the product subject of this documentation is defined an "article".*

*Unlike suppliers of substances and mixtures, suppliers of articles are not required to provide its customers standardized information<sup>1</sup> as Safety Data Sheet.*

*The products covered by this document are not subject of issuance of Safety Data Sheet (SDS). However, it seems appropriate, in order to allow a correct use, to provide the following information using the scheme in sixteen points of Annex II of the REACH Regulation, according to amendments from EU Regulation 2015/830 .*

#### 1. PRODUCT AND PRODUCER IDENTIFICATION

- 1.1. PRODUCT IDENTIFIER: Waterproofing membrane
- 1.2. RELEVANT USE: Waterproofing applications ( i.e: buildings, roof gardens, bridges, reservoirs, dams, canals, tunnels, transportation infrastructures)
- 1.3. PRODUCER IDENTIFICATION  
Name: Pluvitec S.p.a.  
Address: Via Quadrelli 69 - Ronco all'Adige – VR - Italy  
E-mail: info@pluvitec.com
- 1.4. EMERGENCY TELEPHONE NUMBER: Anti-poisons Centers  
Ospedale Niguarda – Milano tel +39 02 66101029  
Università di Roma - Policlinico Umberto I Roma - tel +39 06 490663  
Ospedali Riuniti Cardarelli - (at Ats 40) Napoli - tel +39 081 5453333

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<sup>1</sup> with the exception of articles that contain SVHC (Substances of Very High Concern) in a concentration above 0.1% weight by weight (w/w), for which information must be provided in accordance with Article 33 of the REACH Regulation.



## SAFETY INFORMATION DATA SHEET

### Reinforced bitumen sheets for roof waterproofing

2 / 7

#### 2. HAZARD IDENTIFICATION

- 2.1. **CLASSIFICATION.** The product is not classified as hazardous in accordance with the national regulation (Regulation CLP (EC) N° 1272/2008 and subsequent modifications).  
When applied, rolls are extended on the surface to be protected; the application may be obtained with hot or cold bonding, with care to correct superimposing of side and top junction space for welding.
- 2.2. **HEALTH RISK** Acute nose and throat irritation are possible during the heat treatment and application of the product, especially in indoor or poorly ventilated environments, due to the inhalation of potentially hazardous substances such as gas and condensed fumes.
- 2.3. **SAFETY RISK**  
The molten product may adhere to the skin and may cause burns.  
The presence of inflammable materials (HC vapours, etc.) may cause fire events.
- 2.4. **ENVIRONMENTAL RISKS**  
Membranes may cause long-term adverse effects because their components are not biodegradable.

#### 3. COMPOSITION/INFORMATION ON INGREDIENTS

- 3.1. **COMPOSITION.** The product consists in a mixture of penetration grade bitumen and polyolefin and/or elastomer polymers, manufactured in membrane rolls.
- 3.2. **INFORMATION ON INGREDIENTS:** The product does not contain any hazardous components in accordance with the national regulation (Regulation CLP (EC) N° 1272/2008 and subsequent modifications).

#### 4. FIRST AID MEASURES

- 4.1. **INHALATION** In case of long-term inhalation of fumes, particularly in indoor or poorly ventilated environments, move person to fresh air and call for medical assistance.
- 4.2. **SKIN CONTACT** In case of skin contact with molten product, immediately flush skin with plenty of fresh water. Do not pull solidified product away from the skin by using solvents. Remove contaminated clothing immediately and seek immediate medical advice.
- 4.3. **EYE CONTACT** If melt substance has got into eyes, wash out with water for at least 15 minutes and seek immediate medical attention. Do not pull product away from the eye. In case of irritation by fumes wash out with cold water.
- 4.4. **INGESTION:** Seek immediate medical attention.



## SAFETY INFORMATION DATA SHEET

### Reinforced bitumen sheets for roof waterproofing

3 / 7

#### 5. FIREFIGHTING MEASURES

- 5.1. EXTINGUISHING MEDIA : CO<sub>2</sub>, nebulized water, foam, dry chemical. Do not use direct stream of water to extinguish.
- 5.2. PERSONAL PROTECTION: In the event of fire, use supplied air respirators with universal filter U.P.  
In the case of indoor or poorly ventilated environments the personnel involved must be equipped with the breathing apparatus

#### 6. ACCIDENTAL RELEASE MEASURES

Not applicable.

#### 7. HANDLING AND STORAGE

- 7.1. CONDITIONS FOR SAFE STORAGE Protect material from heat and direct sunlight (temperature 0°- 40°C) and keep away from electrical equipment.  
Keep rolls in a vertical position and do not stack them. For safe storage follow the specific storage recommendations for this product.  
It is not necessary to take precautionary measures to prevent the formation of static electricity.  
Open flames are prohibited. Keep extinguish media available (Point 5).
- 7.2. PRECAUTIONS FOR SAFE HANDLING  
Provide appropriate ventilation when the product is applied in indoor or poorly ventilated environments.
- 7.3. PRECAUTIONS FOR USE  
Membrane applications should follow the "Technical instructions" provided by the manufacturer, according to the principles of good technique and Safety (point 8 and ANNEX 1).  
In case of indoor or poorly ventilated applications, use the Personal Protective Equipment (Point 8). Avoid open flames.



## SAFETY INFORMATION DATA SHEET

### Reinforced bitumen sheets for roof waterproofing

4 / 7

#### 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

##### 8.1. EXPOSURE CONTROLS

Open flame operations involved in installing bitumen-polymer waterproofing membranes may generate the dispersion of potentially hazardous substances.

Provide appropriate ventilation when the product is applied in indoor or poorly ventilated environments (Point 2) in order to keep the exposure levels below the required limits (T.L.V.- ACGIH – 0,5 mg/m<sup>3</sup>).

##### 8.2 PERSONAL PROTECTIVE EQUIPMENT

During product applications, the following personal protective equipment is recommended:

- Skin protection: protective gloves; long sleeve shirt, trousers, safety shoes.
- Eye protection: safety glasses
- Foot protection: safety shoes

In case of indoor or poorly ventilated indoor applications provide appropriate ventilation (Point 8.1). In case of inadequate ventilation system, use a respiratory protection equipment. The use of particulate filter respirators against solid & liquid particles is recommended (P3 protection).

##### 8.3 HYGIENIST MEASURES

- Wash hands before every break and after the work shift.
- Keep work clothes separate from the other clothing

#### 9. PHYSICAL AND CHEMICAL PROPERTIES

|                              |                                   |
|------------------------------|-----------------------------------|
| - PHYSICAL FORM              | Membrane rolls                    |
| - ODOUR                      | slight bitumen odour              |
| - pH                         | not applicable                    |
| - BOILING POINT/RANGE        | > +470°C ca. (bitumen)            |
| - MELTING POINT/RANGE        | > +100°C                          |
| - FLASH POINT                | > +230°C ca. (bitumen)            |
| - INFIAMMABILITY(solid, gas) | Calorific value 9.000 kcal/kg ca. |
| - AUTOIGNITION TEMPERATURE   | > +485°C ca. (bitumen)            |
| - EXPLOSIVE PROPERTIES       | NO                                |
| - OXIDIZING PROPERTIES       | NO                                |
| - VAPOUR PRESSURE            | not applicable                    |
| - DENSITY                    | 1 ÷ 1,5 kg/dm <sup>3</sup>        |
| - SOLUBILITY IN WATER        | NO                                |
| - LIPID SOLUBILITY           | YES (organic solvents; oils)      |



## SAFETY INFORMATION DATA SHEET

### Reinforced bitumen sheets for roof waterproofing

5/7

#### 10. STABILITY AND REACTIVITY

- 10.1 STABILITY The product is stable and is not considered to be reactive under normal temperature and pressure.
- 10.2 REACTIVITY The product is chemically inert.
- 10.3 INCOMPATIBLE MATERIALS Avoid contacts with oxidizing agents, especially under high temperatures, because the product may have esothermal reactions.

#### 11. TOXICOLOGICAL INFORMATION

- 11.1 THE PRODUCT The product consists in a mixture of distilled bitumen and polyolefin and/or elastomer polymers and reinforcement .  
The product does not contain coal tar and asbestos.  
The product is not classified as hazardous.

- 11.2 INFORMATION ON TOXICOLOGICAL EFFECTS  
The product may be applied in adhesive cold or heat welded. Open flame operations involved in installing bitumen-polymer waterproofing membranes may generate the dispersion of potentially hazardous substances (VOC).

The exposure levels to these substances are widely below the normative limits for VOC fumes in metropolitan areas (Source: Bertazzi PA, FOA' V., Fustinoni S., see section 16)

Acute health hazards:

- eye irritation
- skin irritation
- nose and throat irritation

Repeated long-term exposure needs regular medical examination, in accordance with national regulation (DLgs 81/2008 and subsequent modifications)

The product should be applied in accordance with the rules of hygiene, safety and good industrial practice, according to the technical instructions provided by the manufacturer..

#### 12. ECOLOGICAL INFORMATION

The product must be stored and used in accordance with the rules of hygiene, safety and good industrial practice, according to the technical guidance provided by the manufacturer (Point 7)  
Dispose of this product according to national regulations, in order to avoid environmental pollution (Point 13).

#### 13. DISPOSAL CONSIDERATIONS

Dispose of the product in landfill.

The product is classified as non hazardous special waste in accordance with national regulations (D.Lgs 152/2006 and subsequent modifications)



## SAFETY INFORMATION DATA SHEET

### Reinforced bitumen sheets for roof waterproofing

6 / 7

#### 14. TRANSPORT INFORMATION

No special transportation or shipping requirements.

#### 15. REGULATORY INFORMATION

- 15.1 LABEL: no labelling required  
H- Phrases: not applicable (or hazard statements)  
P- Phrases: not applicable (or precautionary statements)
- 15.2 EUROPEAN REGULATION: Regulation (CE) n. 1907/2006 (REACH), Directive 2008/98/CE and subsequent modifications, Regulation EU 830/2015, May 25<sup>th</sup>, 2015, Regulation CLP (EC) N° 1272/2008 and subsequent modifications.
- 15.3 ITALIAN REGULATION: D.lgs 152/2006 and subsequent modifications, D.Lgs. n. 81/2008 and subsequent modifications; DPR 30 giugno 1965 n. 1124 and subsequent modifications.

This safety Information data sheet includes the following 16 headings in accordance with Annex II of COMMISSION REGULATION (EU) No 830/2015, May 20<sup>th</sup>, 2015 amending Regulation (EC) No 1907/2006 of the European Parliament and of the Council on the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH)

#### 16. OTHER INFORMATION

##### References:

- Istituto Superiore di Sanità – Prot. 30189/TOA6 del 10 ottobre 1997 “Classificazione di pericolosità del bitume e del catrame”
- NIOSH Registry of toxic effects of chemical substances SAX Dangerous Properties of industrial materials.
- Bertazzi P.A., Foà V., Fustinoni S., “Esposizione professionale a idrocarburi policiclici aromatici durante la stesura bituminosa”, Università degli Studi di Milano, Dipartimento di Medicina del Lavoro, Milano, 2005.
- ACGIH: Threshold Limit Values (TLV) for chemical substances (2008).
- Atti del Convegno su Salute e sicurezza nelle opere di impermeabilizzazione con membrane bituminose, Albino 18 dicembre 2009)



## SAFETY INFORMATION DATA SHEET

### Reinforced bitumen sheets for roof waterproofing

7 / 7

#### ANNEX I

##### TECHNICAL SPECIFICATION CONCERNING MODIFIED BITUMINOUS MEMBRANES APPLICATION

Membrane's application must be performed according to the technical indications in this document and aimed at carrying out the operation according to the principles of good technique and safety criteria.

The application of the membrane must be carried out taking into account specific principles referred to the following areas:

#### 1. EXPOSURE CONTROL

- **PROTECTION OF RESPIRATORY EQUIPMENT:** avoid working in closed rooms and / or without adequate ventilation: the application of this product indoors must take place in premises equipped with adequate systems for extraction of the vapors generated during the heating operations with the use of the flame.

In case of confined spaces with insufficient ventilation, use individual respiratory protection consisting of a mask with an AP type filter (for protection against organic vapors, dusts and fumes, spray painting, protection level P3).

- **HAND PROTECTION:** use special protective gloves.
- **EYE PROTECTION:** safety glasses and face shields.
- **SKIN PROTECTION:** use suitable protective clothing.
- **FOOT PROTECTION:** safety shoes

Implement the health and safety workers standards provided by current legislation.

#### 2. INSTALLATION TEMPERATURE CONTROL

- **TEMPERATURE CHECKING:** in case of flame or hot air laying for membranes with face/s covered with hot melt film, the correct heating temperature is highlighted by the complete shrinkage of the same; in case of talc or sanded surfaces, the blackening and the appearance of a shiny surface indicates a sufficient heating for the adhesion of the surfaces.

The correct laying procedure is indicated by the width of a stream of molten mixture along the overlap line. The width of molten mixture must not exceed  $1 \div 2$  cm.

- **COLOR OF THE FLAME:** During the laying, the colour of the flame must remain blue, any reddish colorations are indication of excessive heating that must be avoided. Further rework should be avoided as they are harmful for the mixture and for the reinforcement and produce vapors emissions in vain.
- **USE OF THE THERMOMETER:** In the case of melted bitumen laying the use of thermometer allows to control the temperature of the boiler where the bitumen is melted.
- **CHECKING THE FREE FLAMES:** The use of the free flame, if unattended, can constitute a fire hazard. Keep available adequate fire fighting systems.

The information contained herein is provided in the present state of our knowledge and may be subject to change and/or upgrades. The product must be stored and used in accordance with the rules of hygiene, safety and good industrial practice, according to the technical guidance provided by the manufacturer and in accordance with local and European regulations.