

MATERIAL SAFETY DATA SHEETS

INTRODUCTION

In terms of the Ministerial Decree n° 65 of 14th March 2003, which sets out «the classification and rules governing the packaging and labelling of dangerous preparations in execution of the directives issued by the Council and by the Commission of the European Community», the release of a safety data sheet for the product under examination is not compulsory, it being a manufactured article and, as such, not falling within the field of application of the regulation which, in this connection, applies only to dangerous preparations.

It may, however, be of assistance to provide the information below, intended to ensure proper product use, using the sixteen-point schedule - indicated in the Ministerial Decree of 7th September 2002 - leaving blank those sections which are plainly not relevant to this particular product.

1. IDENTIFYING PARTICULARS OF THE ARTICLE AND OF THE MANUFACTURING COMPANY/FIRM

1.1 **Product name:** APP Modified *bitumen Waterproofing Membrane in rolls.*

1.2 **Trade Name:** Roll Manto APP –10°, Roll Manto APP –10° Gravilla,

1.3 **Use:** Membranes are used for all types roofing needs air barrier ed waterproofing protection

1.4 **Manufacturer:** Casali S.p.A. Z. Ind. C.I.A.F. 60020 Castelferretti Falconara Marittima Ancona Italy

1.5 **Manufacturing works:** Casali S.p.A. Z. Ind. C.I.A.F. 60020 Castelferretti Falconara Marittima Ancona Italy

1.6 **In case of emergency:** telephone: + 39 071 916 20 95

EMERGENCY OVERVIEW

Bitumen membrane. Asphalt odour. Under normal use, this product is not expected to create any health or environmental hazard. Inhalation of dust or of asphalt fumes can cause a respiratory irritation and/or a congestion.

2. INFORMATION ON CONSTITUENTS

There are no dangerous substances within the meaning of *EU* directive 67/548/CE and subsequent amendments and additions to them.

NAME	COMMON NAME	CAS #	% WEIGHT Unit of measure	EXPOSURE LIMIT (ACGIH)	
				TLV-TWA	TLV-STEL
BITUMINOUS BLEND					
Petroleum Asphalt Bitumen	Asphalt	8052 42 4	50/70	0,5 mg/m ³	Not established

Casali spa - zona ind. C.I.A.F. 60020 Castelferretti (AN) ITALY tel. (+39) 071 9162095 r.a. fax (+39) 071 9162098

www.casaligroup.it - staff@casaligroup.it - cap.soc Eur 327.600 i.v. - R.E.A. An n. 59972 Reg. Imp. An. e C. Fisc e P.Iva IT00123370421

Polyethylene	Polyethylene	9002 88 4	1-5	15 mg/m ³	Not established
Ethylene Propylene Copolymer	Copolymer	9010 79 1	1-5	10 mg/m ³	Not established
Polypropylene	Polypropylene	9003 07 0	1-10	10 mg/m ³	Not established
Calcium Carbonate ¹	Limestone	1317 65 3	5-40	10 mg/m ³	Not established
REINFORCEMENT					
Some products may contain fibre glass, polyester or with a mix of glass grid and polyester.					
Non-woven Polyester Contains: Fibre glass filament ¹	Polyester mat Fiberglass	N/A 65997 17 3	180 gr/ m ²	Not established 1 f/cc	Not established
UNDERFACE AND SURFACE					
Some membranes are protected by sand, mineral granule, polyethylene film.					
Polyethylene film	Polyethylene	9002-88-4	8 gr/m ²	Not established	Not established
Sand Contains: Crystalline silica ²	Sand	N/A 14808-60-7	6 gr/m ²	0.1 mg/m ³ 0.1 mg/m ³	Not established
Coloured granules Contains: Crystalline silica ²	granules	N/A 14808-60-7	1000 gr/m ²	Not established 0.1 mg/m ³	Not established

1. The exposure to the product above the limits of exposure is not likely to occur considering its form (incorporated in the mixture) and the provided use. The limit of exposure is given for reference only.

2. A proportion of crystalline silica can be present in the sand sprinkled on the top of some membranes. The crystalline silica contained in the sand is not likely to be found in the ambient air in concentration above the limit of exposure since the sand adheres to the surface of the membrane.

3. HAZARD WARNINGS

Not applicable.

4. FIRST AID MEASURES

INHALATION: In cases of anomalous inhalation of vapours during scorching, especially in confined spaces, the victim should be removed from the workplace. Help him to breathe in fresh air and consult a physician.

SKIN CONTACT: In cases where material in the molten state comes into contact with the skin, the latter should be flushed for a sustained period with cold water and do not try to remove the material from the skin. Avoid using solvents to remove the material. Remove any contaminated clothing if this is not stuck to the skin and consult a physician.

EYE CONTACT: In cases where the molten material comes into contact with the eyes, the latter must be rinsed immediately with plenty of cold water for at least 15 minutes. Make no attempt to remove particles of the substance and seek specialist medical attention. In the case of irritation caused by fumes, rinse eyes with plenty of cold water.

INGESTION: In cases of swallowing, seek immediate medical attention.

5. FIREFIGHTING MEASURES

In case of fire, extinguish with waterfog, carbon dioxide, dry powder, or foam. Do not use water jets. Use Up filter masks (for combined universal protection against smoke and combustion gas including CO₂).

6. MEASURES IN CASE OF ACCIDENTAL SPILLAGE/RELEASE

Not applicable.

7. STORAGE AND APPLICATION

7.1 Storage

Keep the rolls in the upright position, protected from the sun (temperature ranging between 0°C and 40°C), and well away from heat sources and electrical plant

No measures are needed to prevent the build-up of static electricity. Keep proper fire-extinguishing means available.

7.2 Application

Use proper protective clothing (see, point 8).

Casali spa – zona ind. C.I.A.F. 60020 Castelferretti (AN) ITALY tel. (+39) 071 9162095 r.a. fax (+39) 071 9162098

www.casaligroup.it – staff@casaligroup.it – cap.soc Eur 327.600 i.v. – R.E.A. An n. 59972 Reg. Imp. An. e C. Fisc e P.Iva IT00123370421

Avoid applying in confined spaces and/or where there is no proper ventilation (see point 8).

Follow the rules on health and safety at work laid down in existing legislation.

Keep proper fire-extinguishing means available.

During application the material in the molten state can cause scalding.

Use of a freely burning flame, if unguarded, may constitute a fire risk.

When flame or hot air are used for application purposes, the right heating temperature for sheathing with a thermo-melt film covering on their face(s) is indicated by the full retraction of the film. For sand-covered or talc-covered surfaces, the right temperature for surface adhesion is indicated by blackening and by the appearance of a shiny surface. The right application procedure is reported by a molten mix along the line where the sheet overlap. The molten mix should not be above 1-2 cm.

Further removal of make up have to be avoided because of possible damages to the mix and because they can produce useless emission of vapours. During the application the flame colour must be blue; a red flame indicates an excessive heating that must be avoided.

Where application involves use of molten bitumen, a thermometer will enable a check to be kept on the temperature of the pot in which the bitumen is melted.

8. EXPOSURE CONTROL AND PERSONAL PROTECTION

8.1 Recommended personal protection equipment:

- Hand protection : wear proper protective gloves.
- Eye protection : safety goggles and face mask.
- Skin protection : wear appropriate protective clothing.

8.2 The application of this product in building interiors must be carried out in enclosed areas where there is adequate extraction plant for the vapours generated during scorching operations. In case of building interiors with a not sufficient ventilation wear a respiratory protective device in form of a mask with an AP filter (for protection against organic vapours, dust and fumes, spray painting, protection degree P3)

Exposure limits: TLV/TWA = 0,5 mg/m³ measured as benzene-extractable inhalable particulate. (asphalt fumes).

8.3 Wash hands before work breaks and at the end of work.

Keep working clothes separate.

9. PHYSICAL AND CHEMICAL PROPERTIES

- | | |
|-------------------------------|--|
| - Appearance: | sheeting in rolls |
| - Odour: | mildly bituminous |
| - pH: | not applicable |
| - Boiling point/range: | > +470 °C approx. (bitumen) |
| - Melting point/range: | > +100 °C approx. |
| - Flash point: | > + 230° C approx. (bitumen) |
| - Flammability (solids, gas): | calorific value 9000 kcal/kg approx. |
| - Self ignition: | > +485°C approx. (bitumen) |
| - Explosive properties: | NO |
| - Comburent properties: | NO |
| - Vapour pressure: | not applicable |
| - Density | 1 - 1.5 kg/dm ³ |
| - Solubility: | Water solubility NO
Lipid solubility YES (organic solvents, oils) |

10. STABILITY AND REACTIVITY

Not applicable

11. TOXICOLOGICAL INFORMATION

The product is based on bitumen and thermoplastic polymers.

As such, it constitutes no type of danger.

When molten, the compound or the added bitumen can cause scalding.

Improper use during the application of the product , without regard for the precautions listed in points 7 and 8, may result in irritation to the eyes, respiratory tract, and to the skin, and sensitisation with possible dermatitis and conjunctivitis.

In accordance with the Legislative Decree 25/2002 health check-ups are required for workers using

this product.

The waterproofing operations of surfaces with bituminous sheet torch applied imply a modest dispersion of airborne polycyclic aromatic hydrocarbons (PAH). The measured environmental concentrations of PAH are, on average, three orders of magnitude lower than the occupational limit values established or recommended by associations and agencies for health and safety at work. The environmental levels measured are not far from the environmental concentrations of PAH found in urban areas. (Bertazzi P.A., Foà V., Fustinoni S. "Professional exposure to polycyclic aromatic hydrocarbons during the application of bituminous sheet waterproofing", Università degli Studi di Milano, Department of Occupational and Environmental Health, Milan, 2005).

12. **ENVIRONMENTAL CONSIDERATIONS**

Avoid release into the environment by adopting sound working practices.

13. **DISPOSAL CONSIDERATIONS**

The product is not dangerous within the meaning of D.Lgs. (Legislative Decree) n° 172 of 3rd April 2006.

The product is not to be disposed of other than through sending to an authorised dump.

14. **TRANSPORT INFORMATION**

No hazards are associated with transportation of the product.

15. **REGULATORY INFORMATION**

EU: directives 67/548/EEC of 27th June 1967, 1999/45/EC of 31st of May 1999, 91/155/EEC of 5th March 1991, and subsequent amendments and additions to them.

Italy: D. Lgs. (Legislative Decree) n° 65 of 14th March 2003, DPR (Presidential Decree) n° 547 of 27th April 1955, DPR n° 303 of 19th March 1956, DPR n° 482 of 9th June 1975, D. Lgs. n° 152 of 3rd April 2006, DPR n° 336 of 13th April 1994, D. Lgs. n° 626 of 19th September 1994 (the provisions of Part VII, inter alia, are not applicable), D. Lgs. n° 25 of the 2nd February 2002, D. Lgs. n° 52 of 3rd February 1998 and all amendments and additions to the foregoing as well as any other national regulations applicable.

16. **OTHER INFORMATION**

Sources used in the compilation of this data sheet include:

Istituto Superiore di Sanità – Prot. 30189/TOA6 of 10th October 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. "Professional exposure to polycyclic aromatic hydrocarbons during the application of bituminous sheet waterproofing", Università degli Studi di Milano, Department of Occupational and Environmental Health, Milan, 2005).

The information contained in this data sheet is provided subject to our current state of knowledge, carries no warranty status, and may undergo revision. The product must be stored and used in accordance with health and safety regulations and good industrial practice, and in compliance with the supplier's technical instructions and statutory provisions.