

SAFETY DATA SHEET

SBS MODIFIED BITUMEN WATERPROOFING MEMBRANE

Offerte en français

| GHS | PROTECTIVE CLOTHING | TRANSPORT OF DANGEROUS GOODS |
|---------------|---|------------------------------|
| Not regulated |  | Not regulated |

SECTION I: IDENTIFICATION

Trade names: Dryseal, Elasto, Lastobond, Lastoflex, Modified Sopra G, Perimet'R, Sopragrip F, Sopraguard, Sopralast, Soprasolin, Sopratape, Sopravap'R.

Use: Membranes are used for all types of roofing needs, air barrier and waterproofing protection.

| | | | |
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| Manufacturers and distributors: | Soprema Canada 1675 Haggerty Street Drummondville (Quebec) J2C 5P7 CANADA Tel.: 819 478-8163 | Soprema Inc. 44955 Yale Road West Chilliwack (B.-C.) V2R 4H3 CANADA Tel.: 604 793-7100 | Soprema Australia PTY LTD L35, 100 Barangaroo Avenue, Barangaroo, NSW2000 AUSTRALIA Tel.: +61 8046 7464 |
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In case of emergency: In case of emergency, outside office hours, Australia: In case of emergency, outside office hours, New Zealand:

SOPREMA (8:00am to 5:00pm): +61 8046 7464 Poison Information Centre: 13 11 26 National Poisons Centre: 0800 764 766

SECTION II: HAZARD(S) IDENTIFICATION

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 slight respiratory irritation and/or congestion.

SECTION III: COMPOSITION AND INFORMATION ON DANGEROUS INGREDIENTS

| NAME | CAS # | % WEIGHT | EXPOSURE LIMIT (ACGIH) | |
|---|-------------|----------|--|-----------------|
| | | | TLV-TWA | TLV-STEL |
| BITUMINOUS BLEND | | | | |
| Bitumen | 8052-42-4 | 30-70 | 0.5 mg/m ³ Asphalt fumes | Not established |
| Self-adhesive membranes contain: | | | | |
| Highly hydrotreated naphthenic oil¹ | 64742-52-5 | 0-30 | Not established | Not established |
| Calcium Carbonate¹ | 471-34-1 | 0-60 | 10 mg/m ³ | Not established |
| Styrene butadiene copolymer¹ | 9003-55-8 | 0-15 | 10 mg/m ³ | Not established |
| FR products contain: | | | | |
| Calcium borate¹ | 1318-33-8 | 7-15 | 10 mg/m ³ | Not established |
| FR Plus products contain: | | | | |
| FR agent¹ | Proprietary | 1-5 | 2 mg/m ³ | Not established |
| REINFORCEMENT | | | | |
| Some products may contain fibre glass, polyester or a mix of glass grid and polyester. | | | | |
| Polyester mat¹ | N/A | 1-7 | Not established | Not established |
| Fibre glass mat¹ | N/A | 1-7 | Not established | Not established |
| Contains: Fibre glass filament¹ | 65997-17-3 | 0,5-7 | 1f/cc | Not established |
| UNDERFACE AND SURFACE | | | | |
| Some membranes are protected by sand, talc, mineral granule, silicone paper, polyethylene or polypropylene film, aluminium, copper or stainless steel foil. | | | | |
| Silicone paper | N/A | 6-20 | Not established | Not established |
| Polypropylene film | N/A | 2-10 | Not established | Not established |
| Polyethylene film | 9002-88-4 | 2-10 | Not established | Not established |
| Aluminium, copper or stainless steel foil | N/A | 4-15 | Not established | Not established |
| Sand | N/A | 7-13 | 0.1 mg/m ³ | Not established |
| Contains: Crystalline silica² | 14808-60-7 | 7-13 | 0.025 mg/m ³ | Not established |
| Talc | 14807-96-6 | 7-13 | Not established | Not established |
| Coloured granules | N/A | 15-40 | Not established | Not established |
| Contains: Crystalline silica² | 14808-60-7 | < 12 | 0.025 mg/m ³ | Not established |

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

Effects of short term (acute) exposure

SKIN CONTACT

The product can cause a mechanical irritation of the skin because of its rough surface. If the membrane is torch-applied, asphalt fumes can cause skin irritation. The asphalt fumes can cause an irritation of the skin. The contact with this product at high temperature can cause thermal burns.

EYE CONTACT

The product is not likely to cause effects to the eyes. If the membrane is torch-applied, asphalt fumes can be emitted of the product and cause irritations, redness and conjunctivitis to the eyes. The contact with this product at high temperature can cause thermal burns.

INHALATION

The product is not likely to cause effects on the respiratory system. If the membrane is torch-applied, asphalt fumes can be emitted of the product and cause irritations to the nose, the throat and the respiratory tracts, tiredness, headaches, dizziness, nausea and insomnia.

INGESTION

Exposure is not likely to occur by this route of entry under normal use of the product.

Effects of long term (chronic) exposure

SKIN CONTACT

The repeated or prolonged contact can cause irritation. If the membrane is torch-applied, asphalt fumes can be emitted. The long-term exposure to the asphalt fumes can cause changes of the pigmentation of the skin which can be worsened by the exposure to the sun. (1)

INHALATION

If the membrane is torch-applied, asphalt fumes can be inhaled. No data on chronic effects of the exposure to asphalt fumes on the lungs.

CARCINOGENICITY

Due to the product form, exposure to hazardous dusts or fumes is not expected to occur. Information on carcinogenicity is given for reference only. This product is not classifiable as a carcinogen.

Bitumen: Asphalt fumes may contain a variety of polycyclic aromatic hydrocarbons (PAH), some of which are associated with the potential of inducing skin cancer. Increasing amounts of PAH may be released if this product is heated above 200°C. Prolonged or repeated contact of PAH with skin may cause skin cancer where poor personal hygiene may be a contributing factor. Asphalt fumes contain substances such as Benzo(a)pyrene and Dibenzo(a,h)anthracene that are known to cause cancer in humans. In its 2013 monograph (Volume 103), the International Agency for Research on Cancer (IARC) conducted a review of the potential carcinogenicity of bitumen (the European term for asphalt). One of its conclusions was that the “occupational exposures to straight-run bitumens and their emissions during road paving are possibly carcinogenic to humans (group 2B)”. (1)

Crystalline Silica: Breathable crystalline silica from sand is not expected to be released, sand is adhered to product. According to IARC, crystalline silica is carcinogenic for human by inhalation. (3)

Fibreglass Filament: Fibreglass is not expected to be released. In 2001, IARC classified fibreglass as Group 3 “not classifiable as to its carcinogenicity to humans”. The American Conference of Governmental Industrial Hygienists (ACGIH) and the National Toxicology Program (NTP) classify the substance in Group 2B (possibly carcinogenic to humans) based on studies in which animals were injected with large quantities of fibreglass.

The other ingredients were not found to be carcinogenic or no information is available on that matter.

TERATOGENICITY, EMBRIOTOXICITY, FETOTOXICITY

No information available.

REPRODUCTIVE TOXICITY

No information available.

MUTAGENICITY

No information available.

TOXICOLOGICALLY SYNERGISTIC MATERIALS

No information available.

POTENTIAL ACCUMULATION

No information available.

SECTION IV: FIRST AID MEASURES

SKIN CONTACT

If there is presence of dust on the skin, wash gently with water and soap. In the event of contact with the product melted, do not try to remove the product of the affected area and rinse the area affected in cold water. Obtain immediate medical attention. At the end of each working day, clean all the parts of the body which came into contact with asphalt fumes. Clean the clothing contaminated by the asphalt fumes.

EYE CONTACT

Flush eyes with water for at least 15 minutes while holding eyelids open. Do not attempt to remove material from affected area without medical assistance. Obtain immediate medical attention.

INHALATION

Remove victim from contaminated place and restore breathing, if required.

INGESTION

The ingestion of this product is not very likely to occur.

SECTION V: FIRE-FIGHTING MEASURES

| | |
|--|----------------|
| FLAMMABILITY: | Not applicable |
| EXPLOSION DATA: | Not applicable |
| FLASH POINT: | Not applicable |
| AUTO-IGNITION TEMPERATURE: | Not applicable |
| FLAMMABILITY LIMITS IN AIR: (% in volume) | Not applicable |

FIRE AND EXPLOSION HAZARDS

Asphalt fumes are flammable. Torch, used to weld waterproofing membranes, can produce temperatures beyond 1 100°C (2 000°F). Avoid all contact with materials sensitive to these temperatures, as lead or plastic materials. Never work in an enclosed area where gas can accumulate. Shield air conditioning units and other protrusions on the roof with perlite panels or similar material when using the torch around them. Never use torch (es):

- When substrate(s) have been recently covered by solvent-based products (wait until it is dry).
- Near any combustible materials.
- Close to containers containing flammable liquids or materials (keep open flame at least 3 m [10'] away).
- Directly on combustible substrate or insulation.

Voids, holes or gaps in substrate or located nearby the welding zone can be protected against flame penetration. Particular precautions must be taken to keep combustible or heat sensitive insulation away from the torch flame. If wood fibre panels must be installed, use fireproof panels. Avoid presence of combustible materials near open flame. At all times and especially when leaving job site, make sure that there is no smouldering or concealed fire. In that case, strictly follow the safety measures. Job planning must allow for employee presence on the roof at least one hour after torch application. At the end of every day, use a heat detector gun to discover any unusually hot surface. Always have one ABC fire extinguisher on hand, filled and in perfect working order near each torch.

COMBUSTION PRODUCTS

Burning of this material will produce thick black smoke. Irritating and/or toxic gases including Hydrogen Sulphide and Sulphur Dioxide, traces of metallic fumes may be generated by thermal decomposition or combustion.

FIRE FIGHTING INSTRUCTIONS

Evacuate the area. Wear self-contained breathing apparatus and appropriate protective clothing in accordance with standards. Approach fire from upwind and fight fire from maximum distance or use unmanned hose holders or monitor nozzles. Always stay away from the

SECTION X: STABILITY AND REACTIVITY

STABILITY: This material is stable.

CONDITIONS OF REACTIVITY: Avoid excessive heat.

INCOMPATIBILITY: Acid and strong basis and organic solvents and greasy substances.

HAZARDOUS DECOMPOSITION PRODUCTS: None identified.

HAZARDOUS POLYMERISATION: None.

SECTION VI: ACCIDENTAL RELEASE MEASURES

RELEASE OR SPILL

If hot material is spilled, allow enough time to cool completely and remove to a container for disposal. Wear appropriate breathing apparatus (if applicable) and protective clothing. Notify appropriate environmental agencies. Wash spill area with soap and water. Dispose of this material according to local environmental regulations.

SECTION VII: HANDLING AND STORAGE

HANDLING

Soprema's products must be applied by qualified applicators who have received an adequate training, for the prevention and the protection (in particular for the use of the extinguishers) against accidents caused by use of combustible or flammable materials, of liquefied propane gas, open flame, and their material of installation. The present recommendations must be imperatively related to the knowledge of the employees before the application of the products to the building site. Check the construction and the composition of the systems of roof and the walls before welding. Ensure of the cleanliness of the places (debris).

Precautions of the use of the torch: Use only proper torching equipment in perfect working order, C.S.A. certified. Never modify torching equipment. Use only proper hoses suited for propane gas of less than 15 m (50'). Verify and tighten all the connections before the use of the equipment. Do not light the torch if a propane odour is present. Never seek a leak with a flame. Use a torch whose gas output is adjustable with stopping device. Follow the specifications, notices and documentations of the manufacturers.

STORAGE

Flashings must be stored in such a way to prevent any creasing, twisting, scratches and other damages of the roof. The materials must be protected adequately and stored permanently away from flames or welding sparks, protected from bad weather and any harmful substances. Store self-adhesive membranes away from the sun.

SECTION VIII: EXPOSURE CONTROLS / PERSONAL PROTECTION

HANDS: Wear resistant gloves.

RESPIRATORY: If the TLV for dust is exceeded, if use is performed in a poorly ventilated confined area, use an approved respirator in accordance with standards.

EYES: Wear safety goggles in accordance with standards.

BODY: Wear adequate protective clothes. Do not wear synthetic fabric. Remove clothing contaminated with solvents.

OTHERS: Eye bath and safety shower.

SECTION IX: PHYSICAL AND CHEMICAL PROPERTIES

| | |
|---|-----------------------------------|
| PHYSICAL STATE: | Solid |
| ODOUR AND APPEARANCE: | Black membrane with asphalt odour |
| ODOUR THRESHOLD: | Not available |
| VAPOUR PRESSURE (20°C): | Not applicable |
| VAPOUR DENSITY (air = 1): | Not applicable |
| EVAPORATION RATE (Butyl acetate = 1): | Not applicable |
| BOILING POINT (760 mm Hg): | Not applicable |
| FREEZING POINT: | Not applicable |
| SPECIFIC GRAVITY (H₂O = 1): | Variable |
| SOLUBILITY IN WATER (20°C): | None |
| VOLATIL ORGANIC COMPOUND CONTENT (V.O.C.): | Not measurable (0 g/L) |
| VISCOSITY: | Not applicable |

SECTION XI: TOXICOLOGICAL INFORMATION

Effects of Short-Term (Acute) Exposure

No information available.

Effects of Long-Term (Chronic) Exposure

CARCINOGENICITY

Bitumen: Data from experimental studies in animals and cultured mammalian cells indicate that laboratory-generated roofing asphalt fume condensates are genotoxic and cause skin tumours. (2)

Crystalline Silica: Several studies have shown an increased incidence of lung tumours in rats exposed to quartz by inhalation for up to 2 years. IARC has determined that there is sufficient evidence that quartz is carcinogenic to experimental animals. (3)

The other ingredients were not found to be carcinogenic or no information is available on that matter.

REPRODUCTIVE EFFECTS

No information available.

TERATOGENICITY, EMBRYOTOXICITY, FETOTOXICITY

No information available.

MUTAGENICITY

Crystalline Silica: None according to the available information.

No information available about the other ingredients.

SYNERGISTIC MATERIALS

Tobacco smoke increases the effects of silica dust on respiratory system. Simultaneous exposure to known carcinogens as benzo (a), pyrene, can increase the carcinogenicity of crystalline silica.

SECTION XII: ECOLOGICAL INFORMATION

ENVIRONMENTAL EFFECTS

No data.

BIODEGRADABILITY

This product is not biodegradable. No possible bioaccumulation and unlikely bioconcentration in the food chain.

SECTION XIII: DISPOSAL CONSIDERATIONS

WASTE DISPOSAL

This product is not hazardous waste. Consult local, provincial, territory or state authorities to know disposal methods. This material is not listed by the EPA as hazardous waste according to the Resource Conservation and Recovery Act (RCRA) of the United States. No Environmental Protection Agency (EPA) waste numbers are applicable for this product.

SECTION XIV: TRANSPORT INFORMATION

This product is not regulated by Department of Transportation (DOT) and Transportation Dangerous Goods (TDG).

SECTION XV: REGULATORY INFORMATION

DSL: All constituents of this product are included in the Domestic Substances List (Canada).

TSCA: All constituents of this product are listed on the Toxic Substances Control Act Inventory (TSCA – United States).

Prop. 65: This product contains chemicals known to the State of California to cause cancer or reproductive toxicity.

SECTION XVI: OTHER INFORMATION

GLOSSARY

| | |
|---|--|
| CAS: | Chemical Abstract Services |
| CSA: | Canadian Standardization Association |
| GHS: | Globally Harmonized System |
| LD₅₀/CL₅₀: | Less high lethal dose and lethal concentration published |
| TLV-TWA: | Threshold Limit Value – Time-weighted average |

References:

- (1) Material Safety Data Sheet from the supplier
- (2) NIOSH (2001) Hazard Review, Health Effects of Occupational Exposure to Asphalt. U.S. Department of Health and Human Service, Centers for Disease Control and Prevention, National Institute for Occupational Safety and Health, DHHS (NIOSH) Publication No. 2001-110.
- (3) CHEMINFO (2015) Canadian Centre of Occupational Health and Safety, Hamilton (Ontario) Canada

Code of MSDS: CA U DRU SS FS 044

For information: 1 800 567-1492

The Material Safety Data Sheets of SOPREMA are available on Internet at the following site: www.soprema.ca

Update justification:

- GHS format

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