

GHS	PROTECTIVE CLOTHING	TRANSPORT OF DANGEROUS GOODS
Not regulated		Not regulated

**SECTION I: IDENTIFICATION**

Use: Pre-laminated roofing insulation panel.

Manufacturers and distributors:	Soprema Canada	Soprema Inc.	Soprema USA	Soprema Gulfport
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In case of emergency:

SOPREMA (8:00am to 5:00pm): 1 800 567-1492 CANUTEC (Canada) (24h.): 613 996-6666 CHEMTREC (USA) (24h.): 1 800 424-9300

**SECTION II: HAZARD(S) IDENTIFICATION**

**DANGER**

Bitumen membrane laminated on polyisocyanurate panel. 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 congestion.

**SECTION III: COMPOSITION AND INFORMATION ON HAZARDOUS INGREDIENTS**

NAME	CAS #	% WEIGHT	EXPOSURE LIMIT (ACGIH)	
			TLV-TWA	TLV-STEL
<i>SBS modified bitumen membrane (sanded or with a plastic film)</i>				
Bitumen (asphalt)	8052-42-4	30-60	0.5 mg/m <sup>3</sup> Asphalt fumes	Not established
Calcium Carbonate <sup>1</sup>	471-34-1	15-40	10 mg/m <sup>3</sup>	Not established
Oxidized bitumen (asphalt) <sup>1</sup>	64742-93-4	7-13	0.5 mg/m <sup>3</sup> Asphalt fumes	Not established
Styrene butadiene copolymer <sup>1</sup>	9003-55-8	3-7	10 mg/m <sup>3</sup>	Not established
Polyester mat <sup>1</sup>	None	1-5	Not established	Not established
Self-adhesive membranes contain: Highly hydrotreated naphthenic oil <sup>1</sup>	64742-52-5	1-5	Not established	Not established
Fibre glass mat <sup>1</sup> Contains: Fibre glass filament	N/A 65997-17-3	1-5 1-5	1f/cc (for fibres longer than 5 µm with a diameter of less than 3 µm) (OSHA)	Not established
Polypropylene film	None	0.1-1	Not established	Not established
Sand Contains: Crystalline silica <sup>2</sup>	None 14808-60-7	0.1-1 0.1-1	0.1 mg/m <sup>3</sup> 0.025 mg/m <sup>3</sup>	Not established Not established
<i>Rockwool panel (XP)</i>				
Mineral fibre	65997-17-3	60-100	1f/cc (for fibres longer than 5 µm with a diameter of less than 3 µm) (OSHA)	Not established
Urea, polymer with formaldehyde and phenol <sup>1</sup>	25104-55-6	3-7	Not established	Not established
<i>Polyisocyanurate panel (ISO)</i>				
Polyisocyanurate	None	60-100	Not established	Not established
Exclusive additives (panel)	Undisclosed	1-5	Not established	Not established
Pentane <sup>3</sup>	109-66-0	0.1-1	600 ppm	Not established
Isopentane <sup>3</sup>	78-78-4	0.1-1	600 ppm	Not established

- 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.
- 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.
- Pentane and isopentane can be released at very low concentrations (well below the lower flammability limit) of these products when they are cut or crushed. These pentanes are not toxic at concentrations below their lower flammable limit. (1)

### Effects of short term (acute) exposure

#### SKIN CONTACT

The product can cause a mechanical irritation of the skin because of its rough surface and dust. 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. Dust can be irritating to 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. Dust may cause a temporary throat irritation. 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.

**Polysocyanurate:** In 1987, International Agency for Research on Cancer (IARC) classified polyurethane (a similar foam) in Group 3, not classifiable as to its carcinogenicity to humans. (1)

**Asphalt:** According to IARC: not classifiable as to its carcinogenicity to humans. Epidemiological studies of roofers have generally demonstrated an excess of lung cancer in these workers. However, it is unclear to what extent these cancers may be attributable to asphalt exposures during roofing operations, since in the past, roofers have been exposed to coal tar and asbestos, which are known human lung carcinogens. Trace amounts of polynuclear aromatic hydrocarbons (PAHs) may be present in some asphalts and can be released upon excessive heating. Some of these PAHs have been identified as having the potential to induce carcinogenic and reproductive health effects. (2)

**Oxidized asphalt:** In its 2013 monograph (Volume 103), IARC conducted a review of the potential carcinogenicity of bitumen (the European term for asphalt). One of its conclusions was "occupational exposures to oxidized bitumens and their emissions during roofing" are classified in IARC Group 2A, "probably carcinogenic to humans". However, due to the product form, exposure to such component is unlikely under normal conditions of use. (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:** 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 product in Group 2B (possibly carcinogenic to humans) based on studies in which animals were injected with large quantities of fibreglass.

No information available about the other products.

#### SENSITIZATION

Contact with polyisocyanurate panel dust may cause respiratory sensitization.

#### 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 1100°C (2000°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 Carbon monoxide, Carbon dioxide, 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 containers at the time of the fire considering the high risk of explosion. Move the rolls of membrane from fire area if it can be done without risk. Cool the rolls of membrane with flooding quantities of water until well after fire is out.

## EXTINGUISHING MEDIA

Foam, CO<sub>2</sub>, sand, chemical powder.

## 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:** Light brown panel 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 (H<sub>2</sub>O = 1):** Variable  
**SOLUBILITY IN WATER (20°C):** None  
**VOLATIL ORGANIC COMPOUND CONTENT (V.O.C.):** Not measurable (0 g/L)  
**VISCOSITY:** Not applicable

## 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. For the polyisocyanurate panel, acetone, methyl ethyl ketone, tetrahydrofolic acid, chlorine, chloroform, hydrogen peroxide, ethylene dichloride, dimethyl sulfoxide and dimethylformamide.

**HAZARDOUS DECOMPOSITION PRODUCTS:** None identified.

**HAZARDOUS POLYMERISATION:** None.

## SECTION XI: TOXICOLOGICAL INFORMATION

### TOXICOLOGICAL DATA

*No information available on the other products.*

#### *Effects of Short-Term (Acute) Exposure*

No information available.

#### *Effects of Long-Term (Chronic) Exposure*

### INHALATION

**Polyisocyanurate:** There is no known animal studies on the chronic effects of breathing dust from polyisocyanurate foam. However, a subchronic inhalation study showed no adverse respiratory effects in rats after breathing 9 mg/m<sup>3</sup> dust from a similar foam (polyurethane foam) during a 3-months period. (1)

### CARCINOGENICITY

**Asphalt:** 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)

**Highly Hydrotreated Naphthenic Oil:** No study on the human and the animals made it possible to classify naphthenic oils highly hydrotreated as carcinogen (IARC, 1984). (1)

*No information available about the other products.*

### 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 products.*

### 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

**ASTM:** American Society for Testing and Materials (United States)

**CAS:** Chemical Abstract Services

**CSA:** Canadian Standardization Association

**GHS** Globally Harmonized System

**LD<sub>50</sub>/LC<sub>50</sub>:** Less high lethal dose and lethal concentration published

**NIOSH:** National Institute for Occupational Safety and Health (United States)

**TLV-TWA:** Threshold Limit Value – Time-Weighted Average

#### References:

- (1) 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 SDS:** CA U DRU SS FS 174

**For information:** 1 800 567-1492

The Safety Data Sheets of SOPREMA are available on Internet at the following site: [www.soprema.ca](http://www.soprema.ca)

#### Update justification:

- GHS format.

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