

WHMIS	PROTECTIVE CLOTHING	TRANSPORT OF DANGEROUS GOODS
Not regulated		Not regulated

SECTION I: CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Use: Pre-laminated roofing insulation panel.

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 USA 310 Quadral Drive Wadsworth (Ohio) 44281 UNITED STATES Tel.: 1 800 356-3521	Soprema Gulfport 12251 Seaway Road Gulfport (Mississippi) 39503 UNITED STATES Tel.: 228 701-1900
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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

EMERGENCY OVERVIEW!!!

Bitumen membrane laminated on bitumen 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.

WARNING! This product may contain substances known by the State of California that could cause cancer (asphalt, crystalline silica, fibreglass).

SECTION II: COMPOSITION AND INFORMATION ON DANGEROUS INGREDIENTS

NAME	CAS #	% WEIGHT	EXPOSURE LIMIT (ACGIH)	
			TLV-TWA	TLV-STEL
Calcium Carbonate ¹	471-34-1	30-60	10 mg/m ³	Not established
Oxidized bitumen (asphalt)	64742-93-4	15-40	0.5 mg/m ³ Asphalt fumes	Not established
Bitumen (asphalt)	8052-42-4	7-13	0.5 mg/m ³ Asphalt fumes	Not established
Styrene butadiene copolymer ¹	9003-55-8	1-5	10 mg/m ³	Not established
Polyester mat ¹	N/A	1-5	Not established	Not established
Fibre glass mat ¹	N/A	1-5	Not established	Not established
Contains: Fibre glass filament ¹	65997-17-3	1-5	1f/cc	Not established
Self-adhesive membranes contain: Highly hydrotreated naphthenic oil ¹	64742-52-5	0.1-1	Not established	Not established
Polypropylene film	N/A	0.1-1	Not established	Not established
Sand	N/A	0.1-1	0.1 mg/m ³	Not established
Contains: Crystalline silica ²	14808-60-7	0.1-1	0.025 mg/m ³	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.

SECTION III: POTENTIAL HEALTH EFFECTS

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.

Asphalt:

According to the International Agency for Research on Cancer (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 October 2011, 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 "occupational exposures to oxidized bitumen and their emissions during roofing" are classified in IARC Group 2A, "probably carcinogenic to humans." (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 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.

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 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, CO₂, 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:	Black 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 (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 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 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

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

WHMIS:	This product is not regulated by WHMIS.
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).

HMIS (USA):		NFPA (USA):	
Health:	0	Health:	0
Flammability:	1	Flammability:	1
Physical hazard:	0	Instability:	0
Protective equipment:	B	Specific hazard:	0

SECTION XVI: OTHER INFORMATION

Glossary:

ANSI:	American National Standards Institute
CAS:	Chemical Abstract Services
CFR:	Code of Federal Regulations
LD50/CL50:	Less high lethal dose and lethal concentration published
HMIS:	Hazardous Material Information System
IARC:	International Agency for Research on Cancer
NIOSH:	National Institute for Occupational Safety and Health
NFPA:	National Fire Protection Association
OSHA:	Occupational Safety & Health Administration
SARA:	Superfund Amendments and Reorganization Act
TLV:	Threshold Limit Value

TWA: Time-weighted average
WHMIS: Workplace Hazardous Materials Information System

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 (2008) Canadian Centre of Occupational Health and Safety, Hamilton (Ontario) Canada

Code of MSDS: CA U DRU SS FS 175
For information: 1-800-567-1492

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

Update justification:

- New product.

This MSDS contains all the information required by ANSI Z-400.1-1998 standard (United States), by regulation 29 CFR Part 1910.1200 of the Hazard Communication Standard of OSHA, and is in accordance with standard DORS/88-66 OF WHMIS Canada.

To the best of our knowledge, the information contained herein is accurate. However, neither the above named supplier nor any of its subsidiaries assumes any liability whatsoever for the accuracy or completeness of the information contained herein. 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.