

GHS	PROTECTIVE CLOTHING	TRANSPORT OF DANGEROUS GOODS
Not regulated		Not regulated

**SECTION I: IDENTIFICATION**

**Trade names:** Acoustidrain, Duolap Cap GR, Flash Stick, High Resistance Cap Sheet Membrane – Single-ply, High Resistance Cap Sheet Membrane – Two-ply, ICF Foundation Waterproofing Membrane, Insono AF3, Lastobond Sanded Finish, Lap Stick, Lastobond HT-N, Lastobond HT-S, Lastobond-Pro LT, Lastobond Pro Grip, Lastobond Smooth Seal HT, Lastobond TU-HT, LB 1236, LB 1244, Multipurpose Aluminum Waterproofing Membrane, Red Zone Waterproofing Membrane, Red Zone 25, Red Zone 25 All Temperatures, Redzone Pro, Resisto Base Sheet Membrane, Resisto Base Sheet Membrane, Resisto SA, Resisto Select, Resisto STT, VB 30, VB50, TopShield Defender TU.

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

**Manufacturers:**

<b>Soprema Canada</b> 1675 Haggerty Street Drummondville (Quebec) J2C 5P7 CANADA Tel.: 819 478-8163	<b>Soprema Inc.</b> 44955 Yale Road West Chilliwack (B.-C.) V2R 4H3 CANADA Tel.: 604 793-7100	<b>Soprema USA</b> 310 Quadral Drive Wadsworth (Ohio) 44281 UNITED STATES Tel.: 1 800 356-3521	<b>Soprema Gulfport</b> 12251 Seaway Road Gulfport (Mississippi) 39503 UNITED STATES Tel.: 228 701-1900
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**In case of urgency:**

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**

Bitumen membrane. Asphalt odour. Under normal use, this product is not expected to create any health or environmental hazard. Inhalation of dust or asphalt fumes can cause 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 III: COMPOSITION AND INFORMATION ON HAZARDOUS INGREDIENTS**

NAME	CAS #	% WEIGHT	EXPOSURE LIMIT (ACGIH)	
			TLV-TWA	TLV-STEL
<b>BITUMINOUS BLEND</b>				
Bitumen	8052-42-4	15-40	0.5 mg/m <sup>3</sup> Asphalt fumes	Not established
Oxidized bitumen <sup>1</sup>	64742-93-4	0-20	0.5 mg/m <sup>3</sup> Asphalt fumes	Not established
Self-adhesive membranes contain:				
Highly hydrotreated naphthenic oil <sup>1</sup>	64742-52-5	1-5	Not established	Not established
Calcium carbonate <sup>1</sup>	471-34-1	0-30	10 mg/m <sup>3</sup>	Not established
Styrene butadiene copolymer <sup>1</sup>	9003-55-8	1-5	10 mg/m <sup>3</sup>	Not established
<b>REINFORCEMENT</b>				
Some products may contain fibre glass, polyester or a mix of glass grid and polyester.				
Polyester mat <sup>1</sup>	N/A	0-7	Not established	Not established
Fibre glass mat <sup>1</sup>	N/A	0-7	Not established	Not established
Contains: Fibre glass filament <sup>1</sup>	65997-17-3	0-7	1f/cc	Not established
<b>UNDERFACE AND SURFACE</b>				
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	0-5	Not established	Not established
Polypropylene film	N/A	0-5	Not established	Not established
Polyethylene film	9002-88-4	0-5	Not established	Not established
Aluminium, copper or stainless steel foil	N/A	0-15	Not established	Not established
Sand	N/A	0-20	0.1 mg/m <sup>3</sup>	Not established
Contains: Crystalline silica <sup>2</sup>	14808-60-7	0-1	0.1 mg/m <sup>3</sup>	Not established
Coloured granules	N/A	0-30	Not established	Not established
Contains: Crystalline silica <sup>2</sup>	14808-60-7	0-1	0.1 mg/m <sup>3</sup>	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 limits 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. The product may stain and stick to 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. The contact with this product at high temperature can cause thermal burns.

#### INHALATION

The product is not likely to cause effects to the respiratory system. If the membrane is burned, asphalt fumes can be emitted 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. (1)

#### INHALATION

Under normal use, the product is not likely to cause effects to the respiratory system.

#### 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)

**Oxidized bitumen:** 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. (2)

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

**Fibreglass filament:** Fibreglass is not expected to be released. In October 2001, the IARC classified fibreglass as Group 3 "not classifiable as to its carcinogenicity to humans". The 2001 decision was based on current human and animal researches that showed no association between inhalation exposure to dust from fibreglass wool and the development of respiratory disease. This is a reversal of a study of the American Conference of Governmental Industrial Hygienists (ACGIH) and the National Toxicology Program (NTP) in 1987 that classified the product in Group 2B (possibly carcinogenic to humans). Those results were based on studies in which animals were injected with large quantities of fibreglass.

*No information is available about 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 or stains on the skin, wash gently with water and soap. In the event of contact with the product melted, do not try to remove it from the affected area. Rinse in cold water. Obtain immediate medical attention.

#### 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

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

#### FIRE AND EXPLOSION HAZARDS

If the product is heated, take note that asphalt fumes are flammable. Do not use water on an asphalt fire.

#### COMBUSTION PRODUCTS

Burning of this material will produce thick black smoke. Irritating and/or toxic gases (including hydrogen sulphide and sulphur dioxide) and 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 that are in accordance with standards. Approach fire from upwind and fight it 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, and chemical powder.

### SECTION VI: ACCIDENTAL RELEASE MEASURES

#### RELEASE OR SPILL

If hot material is spilled, allow enough time to cool completely and place it in 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 the material according to local environmental regulations.

### SECTION VII: HANDLING AND STORAGE

#### HANDLING

Avoid contact with skin, eyes and clothes. Do not ingest. Wash hands after manipulation.

## 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. Self-adhesive membranes must be stored away from the sun.

## SECTION VIII: EXPOSURE CONTROLS AND PERSONAL PROTECTION

**HANDS:** Wear resistant gloves.

**RESPIRATORY:** If the threshold limit value (TLV) for dust is exceeded and if use is performed in a poorly ventilated confined area, use an approved respirator that is in accordance with standards.

**EYES:** Wear safety goggles that are in accordance with standards.

**BODY:** Wear adequate protective clothes.

**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 (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:** Avoid strong acids and strong alkalis, oxidizers organic solvents, and greasy substances

**HAZARDOUS DECOMPOSITION PRODUCTS:** None identified

**HAZARDOUS POLYMERISATION:** None

## SECTION XI: TOXICOLOGICAL INFORMATION

### TOXICOLOGICAL DATA

*No information is available.*

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

No information available

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

### CARCINOGENICITY

**Bitumen:** Data from experimental studies on 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 on rats exposed to quartz by inhalation for up to 2 years. The 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 is available about other products.*

### REPRODUCTIVE EFFECTS

No information available

### TERATOGENICITY, EMBRYOTOXICITY, FETOTOXICITY

No information available

### MUTAGENICITY

**Crystalline silica:** No effect according to the information available.

*No information is available about 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 available

### BIODEGRADABILITY

This product is not biodegradable. There is 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 EPA waste numbers are applicable for this product.

## SECTION XIV: TRANSPORT INFORMATION

This product is not regulated by the 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 (DSL) of Canada.

**TSCA:** All constituents of this product are listed on the Toxic Substances Control Act Inventory (TSCA) of the 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

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

**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 (2010) Canadian Centre of Occupational Health and Safety, Hamilton (Ontario) Canada

**Code of SDS:** CA U DRU SS FS 043

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

### Update justification:

- Added 3 commercial names.
- Added oxidized bitumen to the list of ingredients.
- Modified some of the ingredients concentrations.

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.