

Duro-Last® Torch Down Vapor Barrier

SECTION 1	PRODUCT AND COMPANY IDENTIFICATION
-----------	------------------------------------

Product Name:	Duro-Last® Torch Down Vapor Barrier
Version:	2
Identifier 1:	SBS Modified Bitumen Waterproofing Membrane
Identifier 2:	Torch Down Vapor Barrier (DL TDVB)
Chemical Family:	Article
Product Use:	Membranes are used for all types of roofing needs, air barrier, and waterproofing protection.
Company Information:	Duro-Last®, Inc. 525 W Morley Dr. Saginaw, MI 48601 Phone: (800) 248-0280 Internet Address: www.duro-last.com
Emergency Phone (24 hours):	INFOTRAC 1-800-535-5053 (US & Canada) 1-352-323-3500 (International)

SECTION 2	HAZARD(S) IDENTIFICATION
-----------	--------------------------

Hazard Identification:	Under normal use, this product is not expected to create any health or environmental hazard. Bitumen membrane. Asphalt odor. Inhalation of dust or asphalt fumes can cause a slight respiratory irritation and/or congestion.
Pictogram(s):	N/A
Signal Word:	N/A
Hazard Statements:	H335 - May cause respiratory irritation and/or congestion.
Precautionary Statements:	Prevention P280 - Wear protective gloves/protective clothing/eye protection/face protection.
	Response P304+P341 - IF INHALED: Move victim to fresh air and keep at rest in a position comfortable for breathing.
	Disposal P501 - Dispose of contents/container in accordance with local, state, and federal regulations.

SECTION 3

COMPOSITION/INFORMATION ON INGREDIENTS

Hazardous Ingredients

Chemical Name	CAS Number	Concentration (%)
Bituminous Blend		
Bitumen	8052-42-4	30.00 - 70.00%
Self-adhesive membranes contain: Highly Hydrotreated Naphthenic Oil	64742-52-5	0.00 - 30.00%
Calcium Carbonate	471-34-1	0.00 - 60.00%
Styrene Butadiene Copolymer	9003-55-8	0.00 - 15.00%
FR Products Contain: Calcium Borate	1318-33-8	7.00 - 15.00%
FR Plus Products Contain: Fire Retardant	Proprietary	1.00 - 5.00%
REINFORCEMENT		
Some products may contain fiberglass, polyester or a mix of glass grid and polyester.		
Polyester Mat	N/A	1.00 - 7.00%
Fiberglass Mat Contains: Fiberglass Filament	N/A 65997-17-3	1.00 - 7.00% 0.50 - 7.00%
UNDERSURFACE AND SURFACE		
Some membranes are protected by sand, talc, mineral granule, silicone paper, polyethylene or polypropylene film, aluminum, copper or stainless steel foil.		
Silicone Paper	N/A	6.00 - 20.00%
Polypropylene Film	N/A	2.00 - 10.00%
Polyethylene Film	9002-88-4	2.00 - 10.00%
Aluminum, Copper, or Stainless Steel Foil	N/A	4.00 - 15.00%
Sand Contains: Crystalline Silica	N/A 14808-60-7	7.00 - 13.00% 7.00 - 13.00%
Talc	14807-96-6	7.00 - 13.00%
Colored Granules Contains: Crystalline Silica	N/A 14808-60-7	15.00 - 40.00% < 12.00%

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section.

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 temperatures can cause thermal burns. 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.

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 temperatures 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 off the product and cause irritations to the nose, throat, and respiratory tracts, along with causing tiredness, headaches, dizziness, nausea, and insomnia. No data is available on the chronic effects of the exposure to asphalt fumes on the lungs.

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

Carcinogenicity: Due to the product form, exposure to hazardous dusts or fumes is not expected to occur. This product is not classified as a carcinogen.

A proportion of Crystalline Silica can be present in the sand sprinkled on the top of some membranes; however, 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. Fiberglass is not expected to be released.

SECTION 4

FIRST-AID MEASURES

Inhalation:	If affected: Move to fresh air. Restore breathing. Keep quiet and warm. Consult a physician after significant exposure, or feeling unwell.
Skin Contact:	If there is presence of dust on the skin, wash gently with soap and plenty of water. In the event of contact with the product melted, do not try to remove the product off 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. Remove contact lenses, if present, and easy to do so. Continue rinsing. Do not attempt to remove material from affected area without medical assistance. Obtain immediate medical attention.
Ingestion:	The ingestion of this product is not very likely to occur.
Most important symptoms and effects, both acute and delayed:	Irritant effects.
Protection of first-aiders:	Move out of dangerous area. Consult a physician. Show this Safety Data Sheet to the doctor in attendance.
Notes to physician:	Treat symptomatically.

SECTION 5

FIRE-FIGHTING MEASURES

Fire and explosion hazards:	<p>Asphalt fumes are flammable.</p> <p>Torch, used to weld waterproofing membranes, can produce temperatures beyond 1100°C (2000°F).</p> <p>Avoid all contact with materials sensitive to these temperatures, such as lead or plastic materials.</p> <p>Never work in an enclosed area where gas can accumulate.</p> <p>Shield air conditioning units and other protrusions on the roof with perlite panels or similar material when using the torch around them.</p> <p>Never use torch(es):</p> <ul style="list-style-type: none"> - 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 flames at least 3m [10ft] away). - Directly on combustible substrate or insulation. <p>Voids, holes, or gaps in substrate or located nearby the welding zone can be protected against flame penetration.</p> <p>Particular precautions must be taken to keep combustible or heat sensitive insulation away from the torch flame.</p> <p>If wood fiber panels must be installed, use fireproof panels.</p> <p>Avoid presence of combustible materials near open flame.</p> <p>At all times and especially when leaving jobsite, make sure that there is no smoldering or concealed fire. In that case, strictly follow the safety measures.</p> <p>Job planning must allow for employee presence on the roof for at least one hour after torch application.</p> <p>At the end of every day, use a heat detector gun to discover any unusually hot surfaces.</p> <p>Always have an ABC fire extinguisher on hand, filled and in perfect working order near each working torch.</p>
Suitable extinguishing media:	Foam, Carbon Dioxide, sand, and chemical powder.
Unsuitable extinguishing media:	N/A
Combustion Products:	<p>Burning this material will produce thick black smoke.</p> <p>Irritating and/or toxic gases including Hydrogen Sulphide and Sulphur Dioxide, traces of metallic fumes may be generated by thermal decomposition or combustion.</p>
Fire Fighting Instructions:	<p>Evacuate the area.</p> <p>Wear self-contained breathing apparatus and appropriate protective clothing in accordance with standards.</p> <p>Approach fire from upwind and fight fire from maximum distance or use unmanned hose holders or monitor nozzles.</p> <p>Always stay away from the containers at the time of the fire considering the high risk of explosion.</p> <p>Move the rolls of membrane from fire area if it can be done without risk.</p> <p>Cool the rolls of membrane with flooding quantities of water until well after fire is out.</p>

SECTION 6

ACCIDENTAL RELEASE MEASURES

Handling Precautions:	Wear appropriate breathing apparatus (if applicable) and protective clothing.
------------------------------	---

- Environmental precautions:** Notify appropriate environmental agencies.
Wash spill area with soap and water.
- Cleanup:** If hot material is spilled, allow enough time to cool completely and remove to a container for disposal.
Dispose of this material according to local environmental regulations.
- Regulatory Requirements:** Follow applicable OSHA regulations (29 CFR 1940.120).

SECTION 7 HANDLING AND STORAGE

- Handling Precautions:** Product 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 extinguisher) 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).
Do not breathe vapors or spray mist.
For personal protection, see section 8.
Smoking, eating, and drinking should be prohibited in the application area.
Follow standard hygiene measures when handling chemical products.
- 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 15m (50ft).
Verify and tighten all the connections before the use of equipment.
Do not light the torch if a propane odor is present.
Never seek a leak with a flame.
Use a torch whose gas output is adjustable without stopping device.
Follow the specifications, notices, and documentations of the manufacturers.
- Storage Requirements:** 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 8 EXPOSURE CONTROLS/PERSONAL PROTECTION

Exposure Limits

Component	CAS Number	Basis **	Value	Exposure Limit(s)* / Form of Exposure
Bitumen	8052-42-4	ACGIH	TLV	0.5 mg/m ³ (asphalt fumes)
Calcium Carbonate ¹	471-34-1	ACGIH	TLV	10 mg/m ³
Styrene Butadiene Copolymer ¹	9003-55-8	ACGIH	TLV	10 mg/m ³
Calcium Borate ¹	1318-33-8	ACGIH	TLV	10 mg/m ³
Fire Retardant ¹	Proprietary	ACGIH	TLV	2 mg/m ³
Fiberglass Filament ¹	65997-17-3	ACGIH	TLV	1 f/cc
Crystalline Silica ²	14808-60-7	ACGIH	TLV	.025 mg/m ³
Sand ²	N/A	ACGIH	TLV	0.1 mg/m ³

*The above mentioned values are in accordance with the legislation in effect at the date of the release of this Safety Data Sheet.

****Basis**

ACGIH. Threshold Limit Values (TLV)

1. The exposure to the substances 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.
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.

Engineering Measures: Use of adequate ventilation should be sufficient to control worker exposure to airborne contaminants. If the use of this product generates dust, fumes, gas, vapor or mist, use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure below any recommended or statutory limits. The engineering controls also need to keep gas, vapor or dust concentrations below any lower explosive limits.

Personal Protective Equipment:

Respiratory Protection

If the TLV for dust is exceeded, if use is performed in a poorly ventilated confined area, use a properly fitted NIOSH approved air-purifying or air-fed respirator complying with an approved standard if a risk assessment indicates this is necessary.

The filter class for the respirator must be suitable for the maximum expected contaminant concentration (gas/vapor/aerosol/particulates) that may arise when handling the product. If this concentration is exceeded, self-contained breathing apparatus must be used.

Hand Protection

Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary.

Eye Protection

Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary.

Skin and Body Protection

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

Choose body protection in relation to its type, to the concentration and amount of dangerous substances, and to the specific workplace.

Hygiene Measures

Access to an eyebath and safety shower is recommended.

Wash hands before breaks and immediately after handling the product.

Remove respiratory and skin/eye protection only after vapors have been cleared from the area.

Remove contaminated clothing and protective equipment before entering eating areas.

Wash thoroughly after handling.

SECTION 9	PHYSICAL AND CHEMICAL PROPERTIES
------------------	---

Appearance:	Solid
Color:	Black membrane with asphalt color
Relative Density:	N/A
pH:	N/A
Odor:	N/A
Solubility:	N/A
Specific Gravity (H₂O = 1):	Variable
VOC:	Not measurable (0 g/L)

SECTION 10

STABILITY AND REACTIVITY

Incompatibility:	Acid and strong basis and organic solvents and greasy substances.
Chemical stability:	The material is stable.
Hazardous Decomposition and Polymerization:	None.
Conditions to avoid:	Avoid excessive heat.

SECTION 11

TOXICOLOGICAL INFORMATION

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 tumors.

Crystalline Silica: Several studies have shown an increased incidence of lung tumors 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.

Synergistic Materials:

Crystalline Silica: 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 12

ECOLOGICAL INFORMATION

Environmental Data	No Data.
Biodegradability:	This product is not biodegradable. No possible bioaccumulation and unlikely bio-concentration in the food chain.

SECTION 13

DISPOSAL CONSIDERATIONS

Disposal Methods:	<p>Waste from Residues</p> <p>Disposal of this product, solutions, and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements.</p> <p>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.</p>
--------------------------	--

SECTION 14

TRANSPORT INFORMATION

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

SECTION 15

REGULATORY INFORMATION

TSCA list:	All chemical substances in this product are either listed on the TSCA Inventory or are in compliance with a TSCA Inventory exemption.
CERCLA Reportable Quantity:	This material does not contain any components with a CERCLA RQ.
SARA304 Reportable Quantity:	This material does not contain any components with a section 304 EHS RQ.

SARA 302:	No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.
SARA 313:	This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.
Clean Air Act:	This product does not contain any hazardous air pollutants (HAP), as defined by the U.S. Clean Air Act Section 12 (40 CFR 61). This product does not contain any chemicals listed under the U.S. Clean Air Act Section 112(r) for Accidental Release Prevention (40 CFR 68.130, Subpart F).
Ozone-Depletion Potential:	This product neither contains, nor was manufactured with a Class I or Class II ODS as defined by the U.S. Clean Air Act Section 602 (40 CFR 82, Subpt. A, App. A + B).
California Prop 65:	WARNING: This product can expose you to chemicals including Crystalline Silica and Bitumen, which is known to the State of California to cause cancer . For more information, go to www.P65Warnings.ca.gov .

SECTION 16

OTHER INFORMATION

Previous Editions:	First Edition: 03/29/18
Further Information:	This SDS was prepared in accordance with OSHA regulatory standards for Toxic and Hazardous Substances: 29 CFR 1910.1200
Disclaimer:	To the best of our knowledge, the information contained herein is accurate. However Duro-Last®, Inc. does not assume 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 handled with care. Although Duro-Last®, Inc. has described herein all of the hazards to which we are currently aware, we cannot guarantee that these are the only hazards which exist.