



MATERIAL SAFETY DATA SHEET (MSDS)

SBS Bitumen Membrane

Product Name: SBS Bitumen Membrane

Product Type: Styrene-Butadiene-Styrene Modified Bituminous Waterproofing Membrane

Recommended Use: Waterproofing and roofing applications

Document Type: Material Safety Data Sheet (MSDS/SDS)

1. IDENTIFICATION OF THE PRODUCT AND COMPANY

Product Identifier: SBS Bitumen Membrane

Chemical/Product Family: Polymer Modified Bituminous Waterproofing Sheet

Synonyms: SBS Modified Bitumen Membrane, Elastomeric Bituminous Membrane, SBS Waterproofing Membrane

Recommended Uses:

Waterproofing of roofs, foundations, basements, retaining walls, tunnels, bridges, concrete structures, terraces and other construction surfaces.

Restrictions on Use:

Use only for intended construction and waterproofing applications. Installation should be carried out by trained personnel.

2. HAZARDS IDENTIFICATION

Classification

Under normal conditions of storage, handling and use, the finished SBS Bitumen Membrane is generally considered a solid article and is not expected to present significant chemical hazards. The primary hazards are associated with **heating, torch application, cutting and handling.**

Main Hazards

- Molten or heated bitumen may cause severe thermal burns.
- Torch application may create fire and burn hazards.
- Heating the membrane may generate fumes and vapours that may irritate the eyes and respiratory system.
- Improper lifting or handling of membrane rolls may cause physical injury.
- Cut edges, tools or packaging materials may cause minor mechanical injuries.
- Heated membrane may ignite if exposed to excessive flame or incompatible ignition sources.

Signal Word

Warning

Precautionary Statements

- Avoid breathing fumes generated during heating or torch application.
- Use adequate ventilation during installation.
- Wear suitable protective gloves, clothing and eye protection.
- Keep away from uncontrolled flames and ignition sources.
- Do not allow hot molten material to contact skin.
- Follow applicable roofing and hot-work procedures.



SBS-modified bituminous membranes are commercially manufactured as roofing and waterproofing sheets, commonly with polymer-modified bitumen and reinforcement layers.

3. COMPOSITION / INFORMATION ON INGREDIENTS

The exact composition depends on membrane grade, reinforcement and surface finish.

Component	Typical Content	Function
Bitumen / Asphalt	40–70%	Waterproofing binder
SBS Polymer (Styrene-Butadiene-Styrene)	3–15%	Elastomeric modifier
Mineral Fillers	10–35%	Stability and reinforcement of compound
Polyester / Fiberglass Reinforcement	2–15%	Mechanical reinforcement
Polyethylene Film	<5%	Surface protection / torch film
Mineral Granules / Sand / Slate	Variable	Surface finish where applicable

SBS is used as an elastomeric modifier to improve flexibility and elasticity of bituminous membranes, while polyester or similar reinforcements may provide mechanical strength and dimensional stability.

CAS Number: Mixture / Article

EC Number: Not applicable to finished article.

4. FIRST-AID MEASURES

Inhalation

Under normal handling conditions, inhalation exposure is unlikely.

If fumes generated during heating are inhaled:

- Move the affected person to fresh air.
- Keep the person comfortable and at rest.
- Seek medical attention if coughing, dizziness, headache or respiratory irritation persists.

Skin Contact

For normal contact with cold membrane:

- Wash exposed skin with soap and water.

For contact with hot or molten bitumen:

- Immediately cool the affected area with clean, cool running water.
- Do not attempt to remove bitumen adhered to the skin.
- Do not use solvents to remove bitumen.
- Obtain medical attention for significant burns.

Eye Contact

For dust or particles:

- Rinse cautiously with clean water for several minutes.
- Remove contact lenses if easy to do.
- Continue rinsing.



If hot bitumen enters the eye, obtain **immediate medical attention**.

Ingestion

Ingestion of the finished membrane is unlikely.

If material is accidentally swallowed:

- Rinse mouth.
- Do not induce vomiting unless directed by medical personnel.
- Seek medical advice if symptoms occur.

5. FIRE-FIGHTING MEASURES

Suitable Extinguishing Media

Use:

- Dry chemical powder
- Carbon dioxide (CO₂)
- Foam
- Water fog or fine spray for cooling surrounding materials

Unsuitable Extinguishing Media

Do not direct a high-pressure water jet onto molten bitumen because splashing and spreading of hot material may occur.

Specific Hazards

The membrane is combustible and may burn when exposed to sufficient heat or flame.

Thermal decomposition or combustion may generate:

- Carbon monoxide
- Carbon dioxide
- Smoke
- Hydrocarbon fumes
- Sulfur-containing combustion products
- Irritating organic decomposition products

Protective Equipment for Firefighters

Firefighters should wear:

- Full protective clothing
- Self-contained breathing apparatus where smoke or fumes are present

Special Fire-Fighting Procedures

- Remove unaffected membrane rolls from the fire area if this can be done safely.
- Cool exposed rolls and surrounding materials using water spray.
- Avoid breathing combustion fumes.

6. ACCIDENTAL RELEASE MEASURES

The product is supplied as a solid sheet or roll; therefore conventional liquid spills are not expected.

Personal Precautions

- Avoid contact with hot material.
- Wear appropriate protective gloves and footwear.
- Keep unnecessary personnel away from installation areas.



Environmental Precautions

Prevent waste, scraps and packaging materials from entering:

- Drains
- Waterways
- Soil
- Sewage systems

Clean-Up Methods

For cold product:

- Collect mechanically.
- Reuse where possible.
- Dispose of damaged material according to local waste regulations.

For molten material:

- Allow the material to cool and solidify.
- Remove mechanically.
- Do not use solvents unless specifically permitted by site procedures.

7. HANDLING AND STORAGE

Handling

- Handle membrane rolls carefully to prevent physical injury.
- Use appropriate lifting techniques or mechanical lifting equipment.
- Avoid damaging rolls during transport.
- Avoid prolonged inhalation of fumes during torch application.
- Ensure sufficient ventilation during installation.
- Keep torches and flames under control.
- Follow established hot-work procedures.
- Keep fire extinguishing equipment available during torch application.

Torch-applied SBS membranes are a recognized installation type, while SBS membranes may also be installed through self-adhered or other application systems depending on product design.

Storage

- Store rolls upright unless the manufacturer specifies otherwise.
- Store in a dry, covered and well-ventilated location.
- Protect from direct sunlight and excessive heat.
- Protect from rain, moisture and mechanical damage.
- Keep away from ignition sources.
- Do not stack beyond manufacturer recommendations.
- Store away from strong oxidizing substances.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Engineering Controls

During normal handling of cold membrane, special ventilation is generally not required.

During heating or torch application:

- Provide adequate natural or mechanical ventilation.



- Avoid accumulation of fumes in enclosed spaces.
- Use local exhaust ventilation where necessary.

Respiratory Protection

Normally not required for cold product.

If ventilation is inadequate during thermal application, use appropriate respiratory protection according to local occupational safety regulations.

Hand Protection

Wear:

- Work gloves for normal handling
- Heat-resistant gloves during torch application or contact with hot materials

Eye Protection

Use safety glasses or goggles, particularly during:

- Cutting
- Heating
- Torch application
- Work above shoulder level

Skin and Body Protection

Wear:

- Long sleeves
- Long trousers
- Safety footwear
- Appropriate heat-resistant work clothing during thermal installation

Hygiene Measures

- Wash hands after handling.
- Do not eat, drink or smoke during installation.
- Remove contaminated clothing where necessary.

9. PHYSICAL AND CHEMICAL PROPERTIES

Property	Typical Information
Physical State	Solid flexible sheet
Appearance	Black bituminous membrane
Colour	Black; upper surface may contain coloured mineral granules
Odour	Mild bituminous odour
Odour Threshold	Not established
pH	Not applicable
Melting / Softening Behaviour	Softens when strongly heated
Initial Boiling Point	Not applicable
Flash Point	Not normally applicable to finished solid membrane
Evaporation Rate	Not applicable



Property	Typical Information
Flammability	Combustible solid
Vapour Pressure	Negligible under normal conditions
Vapour Density	Not applicable
Relative Density	Typically greater than water
Water Solubility	Insoluble
Solubility in Other Solvents	Bituminous component may be soluble in some organic solvents
Auto-Ignition Temperature	Not established for finished article
Decomposition Temperature	Not established
Viscosity	Not applicable to solid membrane

10. STABILITY AND REACTIVITY

Reactivity

No hazardous reaction is expected under recommended storage and handling conditions.

Chemical Stability

Stable under normal ambient conditions.

Possibility of Hazardous Reactions

Hazardous polymerization is not expected.

Conditions to Avoid

Avoid:

- Excessive heat
- Uncontrolled flame
- Sparks
- Prolonged exposure to extremely high temperatures

Incompatible Materials

Avoid contact with:

- Strong oxidizing agents
- Other highly reactive chemicals

Hazardous Decomposition Products

When strongly heated or burned, decomposition products may include:

- Carbon monoxide
- Carbon dioxide
- Hydrocarbon fumes
- Smoke
- Irritating organic vapours

11. TOXICOLOGICAL INFORMATION

Acute Toxicity

The finished membrane is not expected to produce significant acute toxicity during normal use.

**Skin Contact**

Cold material is not normally irritating, although prolonged contact may cause minor mechanical or skin irritation.

Hot material may cause serious thermal burns.

Eye Contact

Dust, particles or fumes produced during installation may cause temporary irritation.

Inhalation

Normal handling presents minimal inhalation exposure.

Fumes from excessively heated bituminous materials may cause temporary irritation, including:

- Headache
- Nausea
- Coughing
- Eye irritation
- Nose or throat irritation

Ingestion

Not considered a normal route of occupational exposure.

Chronic Effects

Avoid unnecessary long-term exposure to bitumen fumes. Appropriate ventilation and good occupational hygiene practices should be used when heating the material.

12. ECOLOGICAL INFORMATION**Ecotoxicity**

The finished solid membrane is not expected to present significant acute environmental hazards under normal use.

Persistence and Degradability

Bituminous components are expected to degrade slowly in the environment.

Bioaccumulative Potential

No specific data available for the finished product.

Mobility in Soil

Low mobility is expected because the finished product is solid and largely insoluble in water.

Other Adverse Effects

Do not dispose of membrane waste in natural waterways or uncontrolled environments.

13. DISPOSAL CONSIDERATIONS**Waste Treatment Methods**

Dispose of:

- Membrane offcuts
- Damaged rolls
- Used packaging
- Installation waste

in accordance with applicable local and national regulations.

Where permitted, suitable bituminous waste may be recycled or recovered.

Do not:



- Burn waste in uncontrolled conditions.
- Discharge molten bitumen into drains.
- Dispose of construction waste in waterways.

Empty packaging should be recycled where appropriate and permitted.

14. TRANSPORT INFORMATION

The finished SBS Bitumen Membrane is generally transported as a solid construction material.

Typical classification:

UN Number: Not normally regulated

UN Proper Shipping Name: Not applicable

Transport Hazard Class: Not normally regulated

Packing Group: Not applicable

Marine Pollutant: Generally no

Special Precautions: Protect rolls from excessive heat, mechanical damage and ignition sources.

Transport classification should always be confirmed against the exact formulation and the regulations of the country of shipment.

15. REGULATORY INFORMATION

The finished membrane should be handled in accordance with applicable occupational health, workplace safety, construction, fire safety, environmental and waste-management requirements.

Classification can vary according to:

- Product formulation
- Installation system
- Country of manufacture
- Country of destination
- Local SDS/GHS requirements

Supplier-specific regulatory review should therefore be performed before issuing this document commercially.

16. OTHER INFORMATION

Product: SBS Bitumen Membrane

Application: Roofing and waterproofing

Prepared For: Industrial and commercial use

Revision Date: [Insert Date]

Version: 1.0

Abbreviations

SBS: Styrene-Butadiene-Styrene

MSDS: Material Safety Data Sheet

SDS: Safety Data Sheet

GHS: Globally Harmonized System of Classification and Labelling of Chemicals

PPE: Personal Protective Equipment

CO: Carbon Monoxide



CO₂: Carbon Dioxide

Disclaimer

The information provided in this MSDS is based on currently available technical knowledge and is intended as general guidance for the safe handling, storage, transportation and use of SBS Bitumen Membrane.

Because SBS waterproofing membranes vary by manufacturer, reinforcement, surface finish and application method, this document should be customized using the exact product formulation and applicable national regulations before being issued as an official supplier Safety Data Sheet.

