Asphalt Saturated Polyester Felt
“Manufactured Article”

Version 1.0: Initial issue
Date: March 2016
Updated/No rev.: Feb 2019
SDS #: BCPM0200
Revision Date:
Revision Subject:

SECTION 1: Identification of the Substance/Mixture and of the Company/Undertaking

1.1 Product Identifier
POLYMAX P180 PLY SHEET & BASE PLY

1.2 Relevant Identified Uses of the Substance or Mixture and Uses Advised Against
- ON FLAT ROOFING.
- ON SLOPED ROOFS.
- ON WALLS.
- AS A PLY SHEET IN BUILT- UP ROOFING.
- AS AN UNDERLAYMENT UNDER SHINGLES.
- AS EXTERNAL SHEATHING, BREATHER TYPE.

1.3 Details of the Supplier of the Safety Data Sheet
Hal Industries Inc.
9681, 187th St., Surrey BC
Canada, V4N - 3N3
Tel: 604 888 0777
Toll Free: 1- 800 663 0076
Fax: 604 888 1656
www.halind.com

1.4 Emergency Telephone Number
604 888 0777 (available 07:30 to 16:30 weekdays)

SECTION 2: Hazards Identification

An SDS is not required by the REACH for this article. In addition, articles are not included in the scope of the Globally Harmonization System (GHS). As such, the GHS and CLP labeling elements are not included on this SDS. All components listed for this product are bound within the product. When handled as intended and under normal conditions of use, this product is not expected to create any physical hazards or health risks to humans. Due to product form, exposure to dusts and fumes is not expected to occur.

Although these products are not subject to the OSHA Standard or GHS and CLP labeling elements, Hal Industries Inc. has prepared this Safety Data sheet in accordance with the formatting outlined in REACH Regulation (EC) No 1907/2006, and in CLP (Classification, Labeling & Packaging) Regulation (EC) No 1272/2008, to provide as much health and safety information as possible to ensure protection of people that come in contact with the material in manufacturing, handling, transporting, and installing, as well as the end users and the environment.
2.1 Classification of the Substance or Mixture

Classification in Accordance with the Dangerous Preparation Directive 1999/45/EC
The product is an article, therefore no classification is required.

Classification in Accordance with the Classification Labeling and Packaging Regulation EC No 1272/2008
The product is an article, therefore no classification is required.

2.2 Label Elements

Labeling in Accordance with the Classification Labeling and Packaging Regulation EC No 1272/2008
None required.

2.3 Other Hazards
All components listed for this product are bound within the product. When handled as intended and under normal conditions of use, this product is not expected to create any physical hazards or health risks to humans. Due to product form, exposure to dusts and fumes is not expected to occur.

Effect of Acute Exposure to Product/or the Raw Materials:
This manufactured article as produced and when used under ambient conditions poses no health hazard. However, if the product is heated beyond 200°C or if it catches fire, then the major constituent asphalt emanates slightly irritating fumes. Melted asphalt (bitumen) from the product and the polyester mat could act as a fuel and contribute to fire. NIOSH has found that studies of workers exposed to asphalt fumes have repeatedly found irritation of the serous membranes of the conjunctivae (eye irritation) and the mucous membranes of the upper respiratory tract (nasal and throat irritation).

Eyes: Not expected under normal conditions of use. Asphalt fumes are moderately irritating to the eyes.

Skin: Repeated contact may cause skin irritation due to roughness of product. Redness, drying and cracking of the skin (dermatitis) may occur following prolonged and repeated contact. Prolonged or repeated skin contact could result in absorption of hazardous components. Exposure to hot material causes thermal burns.

Ingestion: Ingestion is unlikely. If ingested, it may cause temporary irritation to the gastrointestinal (digestive) tract.

Inhalation: Prolong inhalation of fumes from hot asphalt causes nausea, headache and dizziness.

Carcinogenicity: When used under normal conditions, this product is not considered a carcinogen.
HAZARD RATING (NFPA)  

<table>
<thead>
<tr>
<th>HEALTH</th>
<th>FLAMABILITY</th>
<th>REACTIVITY</th>
<th>SPECIAL NOTICE</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>1</td>
<td>0</td>
<td>-</td>
</tr>
</tbody>
</table>

HAZARD RATING (HMIS®)  

<table>
<thead>
<tr>
<th>HEALTH</th>
<th>FLAMABILITY</th>
<th>PHYSICAL HAZARD</th>
<th>PERSONAL PROTECTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>1</td>
<td>0</td>
<td>x</td>
</tr>
</tbody>
</table>

NFPA - National Fire Protection Association  
HMIS® is a registered trademark of the American coating Association  

Degree of Hazard  
0 - Minimal (Insignificant)  
1 - Slight  
2 - Moderate  
3 - Serious (High)  
4 - Severe (Extreme)  

SECTION 3: Composition / Information on Ingredients  

3.1 Substances  
Not applicable, product is an article.  

3.2 Mixtures  
The product is not a mixture under the CLP Regulation (EC) No 1272/2008, but is considered to be an article.  
The product consists of a spunbond polyester ply sheet, which has been fully saturated with waterproofing asphalt and covered with sand.  

<table>
<thead>
<tr>
<th>Ingredients</th>
<th>CAS Number</th>
<th>% (w/w)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bitumen (Asphalt)</td>
<td>8052 - 42 -4</td>
<td>30 - 75 %</td>
</tr>
<tr>
<td>Oxidized Asphalt</td>
<td>64742 - 93 -4</td>
<td>30 - 50 %</td>
</tr>
<tr>
<td>Spunbond polyester Mat</td>
<td>Not regulated</td>
<td>20 – 35 %</td>
</tr>
<tr>
<td>Crystalline Silica (Sand)</td>
<td>14808 - 60 -7</td>
<td>0.1 - 1 %</td>
</tr>
<tr>
<td>Kraft Paper (used in Base Ply)</td>
<td>Not regulated</td>
<td>5 - 6 %</td>
</tr>
</tbody>
</table>

SECTION 4: First Aid Measures  

4.1 Description of First Aid measures  
Eye Contact: For contact with cold material, e.g. small particles, wash thoroughly with water and obtain medical attention if signs of discomfort persist.  
In case of contact with hot material, flood eye with copious quantities of cold water for 15 - 20 minutes. Do not try to remove material adhering to the eye. Cover the burn area loosely with a sterile dressing, if available. Seek immediate medical attention.
Skin Contact: For contact with hot material, cool the affected area under cold running water for at least 10 minutes. Do not attempt to remove anything from the burn area. Material adhering to skin will form a sterile barrier, which will fall off after a few days. If requires removing, use baby oil. Do not use solvents and thinners to clean the skin. Cover the burn area loosely with a sterile dressing. Seek medical attention.

Inhalation: In case of inhalation of fumes, remove victim to fresh air. If breathing is difficult, give oxygen and get medical attention.

Ingestion: Not expected to be ingested.

Notes to Physicians
Or First Aid Providers: Water-Jel and baby oil has been shown to be an effective agent in softening and removing asphalt.

4.2 Most Important Symptoms and Effects, both Acute and Delayed

Eyes: Fumes from hot asphalt may cause eye irritation. Contact with hot asphalt may cause thermal burns.

Skin: This product may be abrasive to skin. Rubbing may increase skin irritation. Hot melt products may cause thermal burns.

Ingestion: Not a likely route of entry.

Inhalation: Inhalation of fumes from hot melt products may cause irritation of the mouth and nose and coughing.

4.3 Indication of any Immediate Medical Attention and Special Treatments Needed

Symptomatic treatment as required.

SECTION 5: Firefighting Measures

5.1 Extinguishing Media
Use any suitable media such as water spray, alcohol foam, carbon dioxide (CO₂), or dry chemical foam for surrounding fires.

5.2 Special Hazards Arising from the Substance or Mixture
Standard bitumen based roofing membranes are combustible and release dense black smoke when they burn. The hazardous combustible products are carbon dioxide, carbon monoxide and traces of oxides of sulphur.

5.3 Advice for Fire Fighters
Firefighters should wear full-face, NIOSH-approved self-contained breathing apparatus and impervious protective clothing. Firefighters should avoid inhaling any combustion products. Do not release chemically contaminated water into drains, soil or surface water.
SECTION 6: Accidental Release Measures

6.1 Personal Precautions, Protective Equipment and Emergency Procedures
None usually is necessary. During the production wear goggles and gloves.

6.2 Environmental Precautions
None usually is necessary. During the production, asphalt fumes are collected and burned.

6.3 Methods and Materials for Containment and Clearing up
Sweep up or gather material and place in appropriate container for disposal.

6.4 References to Other Sections
See section 8 and 13 for further advice on protective clothing and disposal.

SECTION 7: Handling and Storage

7.1 Precautions for Safe Handling
Customary personal hygiene measures, such as washing hands after working with this product is recommended. If dusts or fumes of this product are generated, avoid inhalation, skin and eye contact. Appropriate personal protective equipment should be worn handling the hot asphalt.

7.2 Conditions for Safe Storage, Including any Incompatibility
Store at room temperature under normal conditions. Warehouse storage should be in accordance with package directions. Material should be kept dry and protected from the elements.

7.3 Specific End Uses
No special requirements.

SECTION 8: Exposure Controls/Personal Protection

8.1 Control Parameters
No specific exposure limits available. This product as produced and when used under ambient conditions poses no health hazard. The asphalt fumes generated during the process are isolated and burned. The WELs for asphalt, petroleum fumes (bitumen) are 5 mg/ m³ (8-hours TWA) and 10mg/ m³ (15 min ref period).
### Occupational Exposure Limits

<table>
<thead>
<tr>
<th>Ingredients</th>
<th>CAS Number</th>
<th>% (w/w)</th>
<th>OSHA</th>
<th>ACGIH</th>
<th>OTHER</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bitumen (Asphalt)</td>
<td>8052 - 42 -4</td>
<td>30 - 75 %</td>
<td>NE</td>
<td>TWA 0.5 mg/m³ (inhalable fraction, as benzene-soluble aerosol)</td>
<td>REL: 5 mg/m³ – Ceiling (15 min fumes)</td>
</tr>
<tr>
<td>Oxidized Asphalt</td>
<td>64742 - 93 -4</td>
<td>30 - 50 %</td>
<td>PEL 20 ppm (ceiling)</td>
<td>TWA 0.5 mg/m³ (inhalable fraction, as benzene-soluble aerosol)</td>
<td>REL: 5 mg/m³ – ceiling (15 min. fumes)</td>
</tr>
<tr>
<td>Spunbond polyester Mat</td>
<td>Not regulated</td>
<td>20 – 35 %</td>
<td>NE</td>
<td>NE</td>
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</tr>
<tr>
<td>Crystalline Silica (Sand)</td>
<td>14808 - 60 -7</td>
<td>0.1 - 1 %</td>
<td>0.1 mg/m³</td>
<td>0.025 mg/m³</td>
<td></td>
</tr>
<tr>
<td>Kraft Paper (used in Base Ply)</td>
<td>Not regulated</td>
<td>5 - 6 %</td>
<td>NA</td>
<td>NA</td>
<td></td>
</tr>
</tbody>
</table>

#### 8.2 Exposure Controls

**Engineering Control:** No special protective measures are necessary for use of this product in that it is an article, and as such under normal ambient conditions of use is not expected to release, or otherwise result in exposure to a hazardous chemical. Should the product catch fire through external source remain upwind of the fire. Avoid skin and eye contact. Avoid inhalation of fumes.

**Personal Protective Equipment:**

**Eyes/Face:** Where there is a risk of damage to the eyes/face from splashing of hot asphalt or impact, wear eyes/face protection to EN166.

**Skin:** The use of heavy duty gloves to protect against abrasion and burns through contact with hot bitumen is recommended.

**Respiratory:** Not required under normal conditions of use.

**Environmental Exposure Controls:** Not usually required.

### SECTION 9: Physical and Chemical Properties

#### 9.1 Information on Basic Physical and Chemical Properties

**Appearance:** Solid - black sheet in roll form, may be surfaced with sand or kraft paper.
Odour: slight asphalt odour
Odour Threshold: Not applicable
pH: Not applicable
Boiling point: Not applicable, asphalt's boiling point = 400 ºC
Melting point: Not applicable
Flash Point: Not applicable, asphalt's flash point = 265 ºC
Evaporation Rate: Not applicable
Flammability (gas, solids): Standard bitumen based roofing membranes are combustible.

Upper/lower Flammability Limits: No data
Vapour Pressure: Not applicable
Vapour Density: Not applicable
Specific Gravity: Not applicable
Solubility (H2O): Not soluble
Solubility in other Solvents: Not applicable
Auto ignition Temperature: No data
Decomposition Temperature: No data
Viscosity: Not applicable
Explosive Properties: Not classified as explosive
Oxidizing Properties: Not classified as oxidizing

9.2 Other Information
None

SECTION 10: Chemical Stability and Reactivity

10.1 Reactivity
Not considered a reactive material

10.2 Chemical Stability
Stable under normal conditions.

10.3 Possibility of Hazardous Reactions
None expected.

10.4 Conditions to Avoid
None identified.

10.5 Incompatible Materials
None identified.

10.6 Hazardous Decomposition Products
Bitumen fumes and dense black smoke if heated to excessive temperatures.

SECTION 11: Toxicological Information

11.1 Information on Toxicological Effects
This product is an article and as such has not been tested. Judgements on the expected toxicity of this product have been made based upon consideration of its major components.

(a) **Acute Toxicity** Solid at room temperature, not expected to present an acute toxicity hazard. Inhalation of fumes may result in irritation, especially if the product is overheated above recommended temperatures.

(b) **Skin Corrosion/Irritation** Physical abrasion may occur in contact with skin. Thermal burns when handled at elevated temperatures.

(c) **Serious Eye Damage/Irritation** Solid @ RT. Not expected to present a hazard to the eyes. Physical irritation may occur in contact with particles. Thermal burns when handled at elevated temperatures.

(d) **Respiratory/Skin Sensitization** Not considered to be a skin or respiratory sensitizer.

(e) **Germ Cell Mutagenicity** Contains no components known to be mutagenic.

(f) **Carcinogenicity** Bitumen may contain substances including Polyaromatic hydrocarbons (PAHs), some types of which have been associated with cancer. However, long-term studies of bitumen and asphalt workers have not demonstrated any increased cancer risks from the use of these products, and bitumen has been classified by IARC as Group 3, Not classifiable as to its Carcinogenicity to humans.

(g) **Reproductive Toxicity** Contains no components known to be hazardous to reproduction.

(h) **STOT- Single Exposure** No known health effects.

(i) **STOT- Repeated Exposure** No chronic health effects are expected from the normal use of this product.

(j) **Aspiration Hazard** Not relevant.

**SECTION 12: Ecological Information**

This product has not been tested. Judgements on the expected toxicity of this product have been made based upon consideration of its major components.

12.1 **Toxicity**
Not expected to be toxic to the environment.

12.2 **Persistence and Degradability**
Not expected to be biodegradable.

12.3 **Bioaccumulative Potential**
Not expected to bioaccumulate.

12.4 **Mobility in Soil**
Not expected to be mobile in the environment.
12.5 Results of PBT and vPvB assessment  
Not applicable  

12.6 Other Adverse Effects  
Not Known  

SECTION 13: Disposal Considerations  

13.1 Waste Treatment Methods  
Dispose of it in accordance with local regulations.  

SECTION 14: Transport Information  

Not considered to be dangerous goods for transport.  

SECTION 15: Regulatory Information  

15.1 Safety, Health and Environmental Regulations/Legislation Specific for the Substance or Mixture  
All components are listed as existing substances in Europe  

15.2 Chemical Safety Assessment  
A "Chemical Safety assessment" has not been carried out for this product.  

SECTION 16: Other Information  

Other Information:  
This safety data sheet is prepared in accordance with the formatting described in Commission Regulation (EU) No 453/2010.  

List of Abbreviations used in this SDS:  

- ACGIH: American Conference of Governmental Industrial Hygienists  
- CAS: Chemical Abstracts Service  
- CLP: Classification, Labeling and Packaging Regulation (EC) No 1272/2008  
- DPD: Dangerous Preparation Directive 1999/45/EC  
- EC: European Community/Commission  
- GHS: Globally Harmonization System  
- OSHA: Occupational Safety and Health Administration  
- PBT: Persistent, Bioaccumulative and Toxic  
TLV  Threshold Limit Values
VPvB  very Persistent, very Bioaccumulative
WELs  Workplace Exposure Limits

Disclaimer:
The technical information herein is believed to be accurate and reliable as of the date compiled. The information relates to the specific material designated and may not be valid for such material used in combination with any other materials or in any process. It is offered for your consideration, investigation and verification. Buyer assumes all risk of storage, handling and use of product. No representation, warranty or guarantee, expressed or implied, is made as to its accuracy, reliability, or completeness. We do not accept liability for any loss or damage that may occur from the use of this information. Nothing contained herein shall be constructed as license to operate under recommendation to infringe any patents.