

# SAFETY DATA SHEET

## SDS# 1002

### 1. PRODUCT AND COMPANY IDENTIFICATION

**Product Name:** USP® Base Sheet  
**CAS #:** Mixture  
**Generic Name:** Modified Bitumen Roll Roofing  
**Chemical Name:** Asphalt Mixture (Article)  
**Chemical Family:** N/A

**Supplier Information:**

U.S. PLY, INC.  
 P.O. Box 163980  
 Fort Worth, TX 76161  
 (817) 413-0103  
 Internet Website: www.usply.com  
 Email: technical@usply.com

**Emergency Telephone Number**

Company Phone: (817) 413-0103  
 Call Chemtrec Day or Night: 1-800-424-9300

**Trade Name:** USP® Base Sheet

### 2. HAZARDS IDENTIFICATION

**Classification**

**OSHA Regulatory Status**

This chemical is considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

Skin corrosion / Irritation	Category 2
Carcinogenicity	Category 2A

**Label elements**

Warning		Emergency Overview	
<b>Hazard Statements</b> May cause an allergic skin reaction Causes damage to organs through prolonged or repeated exposure. Causes skin irritation			
<b>Appearance</b>	Black sheet in roll form with sand	<b>Physical State</b>	Solid
		<b>Odor</b>	Asphaltic odor

**Precautionary Statements PRECAUTIONARY STATEMENTS**

- Read instructions before use.
- Use in a well-ventilated area.
- Do not handle until all safety precautions have been read and understood.
- Do not breathe dust.
- Wear proper Personal Protective Equipment including gloves, protective clothing, eye protection, face protection, and respirator where appropriate.
- Do not eat, drink or smoke when using this product.
- Thoroughly wash hands and exposed skin after handling.

**Physical Hazards**

**APPEARANCE AND ODOR:**

Black sheet in roll form with sand and an asphalt order. Under normal use conditions, this product is not expected to create any unusual emergency hazards.

Inhalation of excessive amounts of dust from the product may cause temporary upper respiratory irritation and/or congestion. Individuals affected should be moved to fresh air.

NOTE: Hydrogen sulphide (H<sub>2</sub>S), an extremely toxic gas, may be emitted from heated asphalt and may accumulate in storage tanks and other confined spaces. At low concentrations, H<sub>2</sub>S is irritating to the eyes, nose and throat, and at high concentrations (>500ppm) can cause rapid unconsciousness and death. The odor of H<sub>2</sub>S cannot be used as an indicator of exposure, because the gas causes rapid olfactory fatigue, which deadens the sense of smell. Use this product only under well ventilated working conditions.

Skin irritation may be treated by gently washing affected area with soap and warm water.

Eye irritation may be treated by flushing eyes with large amounts of water. If irritation persists, seek medical attention.

In the event of fire, follow normal firefighting procedures to prevent inhalation of smoke and gases.

#### **Potential Health Effects**

The primary hazard of this product is nuisance dust. However due to the large size of the particles, little exposure to airborne dust is expected.

This product contains a small amount of polyaromatic hydrocarbons which have been shown to cause cancer and respiratory damage in laboratory animals. Some asphalts and some asphalt solutions have produced skin cancer in laboratory animals. No association has been established between industrial exposure and cancer. (IRAC\*, PART 4, VOLUME 35). Due to size of the particles, minimal exposure to airborne dust is expected.

#### **Exposure Routes**

<b>Primary:</b>	Inhalation (breathing dust), skin contact and eye contact.
<b>Inhalation:</b>	Irritation of the upper respiratory tract may occur. Acute exposure may irritate mucous membranes with tightness in chest, coughing, wheeziness, or congestion.  Chronic exposure to silica may cause limitation of expansion of the chest, emphysema. Chronic exposure to talc may cause cough, pneumoconiosis.
<b>Skin Contact:</b>	Temporary irritation (itching) or redness may occur. Contact with molten asphalt can result in burns.
<b>Absorption:</b>	Not applicable
<b>Eye Contact:</b>	May irritate eyes. Because of its adhesive and temperature features, the molten asphalt contact with eyes may cause physical damage due to adhesive properties as well as burns.
<b>Ingestion:</b>	May cause irritation of the digestive system.

#### **Medical Conditions Aggravated by Exposure**

Exposure to dust may aggravate pre-existing upper respiratory, skin, lung or eye diseases or conditions.

### **3. COMPOSITION / INFORMATION ON INGREDIENTS**

#### **Substance Mixture**

This product is a mixture.

This chemical is considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

<b>Common Name</b>	USP® Base Sheet
<b>Synonyms</b>	None
<b>Chemical Nature</b>	Asphaltic Mixture/Asphalt Coated Roll Roofing

Chemical Name	CAS #	Weight - %	Trade Secret
Asphalt, oxidized	64742-93-4	0-50	*
Limestone	1317-65-3	0-30	*
Fiberglass Mat			
Fiberglass	65997.17.3	0-10	*
Formaldehyde (within the fiberglass)	50-00-0	0-0.1	*
Crystalline silica (sand)	14808-60-7	0-30	*

\* USP Base Sheet is coated with a sand backing which contains crystalline silica. Note: Due to the product form, exposures to hazardous dusts or fumes are not expected to occur.

### **4. FIRST AID MEASURES**

#### **Description of first aid measures**

<b>General Advice</b>	This product is a mechanical irritant, and is not expected to produce any chronic health effects from acute exposures. Treatment should be directed toward removing the source of irritation with symptomatic treatment as necessary.
<b>Eye Contact</b>	Do not rub or scratch eyes. Dust particles may cause the eye to be scratched. Bathe eye immediately with a large amount of water for at least 15 minutes. If irritation persists, seek medical attention immediately.
<b>Skin Contact</b>	Wash gently with soap and warm water. For molten asphalt contact, cool with ice or water. Do not attempt to remove asphalt immediately. Cover with petroleum jelly (Vaseline). Remove the asphalt has softened. If irritation develops, use a delicate cream. If symptoms persist, in case of redness or blistering seek medical attention for burn treatment.
<b>Inhalation</b>	If breathing difficulty is experienced, move to a fresh air place. Drink water to clear throat and blow nose to remove dust. If difficulty persists, seek medical attention.
<b>Ingestion</b>	This product is not intended to be ingested. In case of ingestion seek medical attention immediately.

**Self-protection of the first aider** First aider: Pay attention to self-protection!

**Most important symptoms and effects, both acute and delayed**

**Symptoms** Not available.

## 5. FIRE FIGHTING MEASURES

**Suitable extinguishing media**

Dry chemical, CO<sub>2</sub>, or foam fire extinguisher should be used for controlling small fires.

**Unsuitable extinguishing media** Do not use a solid water stream as it may scatter and spread fire.

**Specific hazards arising from the chemical**

**Hazardous combustion products**

Primary combustion products are carbon monoxide, carbon dioxide and water. Combustion products may include sulfur oxides and hydrogen sulfide. Other undetermined compounds could be released in small quantities.

**Explosion data**

Treat as hydrocarbon type fire. Hot asphalt may ignite flammable materials on contact. DO NOT direct water into a container or directly onto hot asphalt, a vessel or a storage tank containing asphalt as it may cause violent eruptions and spreading of hot asphalt.

**Protective equipment and precautions for firefighters**

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

**Firefighting equipment/instructions**

Avoid breathing fumes. Use self-contained breathing apparatus (SCBA) and full bunker turnout gear in a sustained fire. Wear protective clothing ensemble as defined in NFPA 1500 (1997, or as updated).

## 6. ACCIDENTAL RELEASE MEASURES

**Personal precautions, protective equipment and emergency procedures**

**Personal precautions** No action should be taken involving any personal risk or without suitable training. Use personal protective equipment as required.

**Other Information** Eliminate all ignition sources (no smoking, flares, sparks or flames in immediate area).

**For emergency responders** Use personal protection recommended in Section 8.

**Environmental precautions**

**Environmental precautions** Pick up large pieces of material. Vacuum dusts. If sweeping is necessary, use a dust suppressant such as water. Do not dry sweep dust accumulation. These procedures will help to minimize potential exposures. See Section 12 for additional ecological information.

**Methods and material for containment and cleaning up**

**Methods for cleaning up** This product, as supplied, is not regulated as a hazardous waste by the U.S. Environmental Protection Agency (EPA) under Resource Conservation and Recovery Act (RCRA) regulations. Comply with state and local regulations for disposal. If you are unsure of the regulations, contact the local Public Health Department, or the local office of the EPA.

## 7. HANDLING AND STORAGE

**Precautions for safe handling**

**Advice on safe handling** Use protective equipment as described in Section 8 of this material safety data sheet when handling uncontained material. Avoid direct exposure to very high heat or flame.

**Conditions for safe storage, including any incompatibilities**

**Storage Conditions** Keep away from heat, sparks or open flame. Store standing upright on end. Material should be kept dry, and protected from the elements. Recommended storage temperature is between 55°F to 95°F (12.7°C to 35°C). Protect from freezing.

**Incompatible materials** Strong acids. Strong oxidizing agents.

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

### Control Parameters

**Exposure Guidelines** No ACGIH or OSHA PEL is assigned to this mixture. Exposure limits for the component materials are shown below. This product, as supplied, is not believed to contain any hazardous material that exceeds exposure limits established by OSHA.

Chemical Name	OSHA		ACGIH	
	TWA	STEL	TWA	STEL
Asphalt, oxidized – (CAS 64742-93-4)	NE	NE	.5mg/m <sup>3</sup> a	NE
Fiberglass – (CAS 65997-17-3)	15 / 5 <sup>b</sup>	NE	5 <sup>b</sup>	NE
Formaldehyde – (CAS 50-00-0)	.75	2	NE	.3
Quartz (Silica) – (CAS 14808-60-7)	-	-	-	-

### Appropriate engineering controls

**Engineering Controls** No special ventilation systems are required under normal conditions of use in well ventilated areas.

### Individual protection measures, such as personal protective equipment

**Eye/face protection** Wear safety glasses with side shields (or goggles).

**Skin and body protection** Personal protective equipment should include safety eye wear, fire resistant gloves, and long sleeve work clothes to prevent excessive skin contact.

**Respiratory protection** No protective equipment is needed under normal use conditions. If exposure limits are exceeded or irritation is experienced, a NIOSH/MSHA approved respiratory protection should be worn.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

### Information on basic physical and chemical properties

<b>Physical State</b>	Solid	<b>Odor</b>	Asphalt odor
<b>Appearance</b>	Black sheet in roll form with sand	<b>Odor threshold</b>	Not available
<b>Color</b>	Black		

### Property

### Values

### Remarks + Methods

<b>pH</b>	Not Available	
<b>Melting point/freezing point</b>	> 95 °C / 200 °F	Melting points are shown. Freezing point is not applicable.
<b>Boiling point / boiling range</b>	> 100 °C / 212 °F	
<b>Flash point</b>	279 °C / 535 °F	Cleveland Open Cup
<b>Evaporation rate</b>	Not Available	
<b>Flammability (solid, gas)</b>	Not Available	
<b>Flammability Limit in Air</b>	Not Available	
<b>Upper flammability limit:</b>	Not Available	
<b>Lower flammability limit:</b>	Not Available	
<b>Vapor pressure</b>	Not Available	
<b>Vapor density</b>	Not Available	
<b>Specific Gravity</b>	1.08 – 1.2	Water = 1 g/ml
<b>Solubility in other solvents</b>	Insoluble	
<b>Partition coefficient</b>	No information available	
<b>Autoignition temperature</b>	> 650 °F	
<b>Decomposition temperature</b>	No information available	
<b>Kinematic viscosity</b>	No information available	
<b>Dynamic viscosity</b>	No information available	
<b>Explosive properties</b>	No information available	
<b>Oxidizing properties</b>	None	

### Other Information

<b>Softening point</b>	Not applicable
<b>Molecular weight</b>	No information available

VOC Content (%)	Not applicable
Density	Not applicable
Bulk density	Not applicable

**10. STABILITY AND REACTIVITY**

**Reactivity**

This product is a stable material. This product is not reactive.

**Chemical Stability**

Stable at normal conditions

**Possible hazardous reactions**

None under normal use

**Hazardous polymerization** Hazardous polymerization does not occur.

**Incompatible materials**

This product will react with strong oxidizing agents, reducing agents, strong acids and alkalis.

**Hazardous decomposition Products**

Oxides of carbon (carbon monoxide, carbon dioxide, carbon particles, and hydrocarbons) are derived from burning.

**11. TOXICOLOGICAL INFORMATION**

**Information on likely routes of exposure**

**Product Information** Toxicological testing has not been conducted for this product overall. Available toxicological data for individual ingredient are summarized below.

**Ingestion** May cause harmful effects if swallowed. However, ingestion is not likely to be a primary route of exposure.

**Inhalation** Dust may cause upper respiratory irritation.

**Skin contact** May cause skin irritation

**Eye contact** May cause eye irritation

**Component Information** \* The IARC Monograph (Vol. 103, 2013, Bitumen and Bitumen Emissions) defines Asphalt as 'Group 2B, Possible Carcinogen to Humans'. This definition is based on studies of exposure to Asphalt fumes at elevated temperatures. The Monograph states that temperature plays an important role in determining the degree of exposure and also the carcinogenic potential of bitumen emissions. This same Monograph states that Asphalt is nonvolatile at ambient temperature. There is no data presented in the Monograph to demonstrate that Asphalt at ambient temperature is considered a carcinogen. Since the normal use of this product is at ambient temperature, the Asphalt used in this product is not listed as a carcinogen. No other national or international agency has defined Asphalt as a carcinogen. \* No significant exposure to Crystalline Silica (Quartz) is thought to occur during the use of products in which Crystalline Silica (Quartz) is bound to other materials, such as in paints and coatings. As one reference, see California Office of Health Hazard Assessment at: [http://www.oehha.org/prop65/CRNR\\_notices/safe\\_use/sylicasud2.html](http://www.oehha.org/prop65/CRNR_notices/safe_use/sylicasud2.html)

Chemical Name	CAS #	Oral LD50	Dermal LD50	Inhalation LC50
Asphalt	5000 mg/kg Rat	2000 mg/kg Rabbit		Asphalt
Quartz (Crystalline Silica)	500 mg/kg Rat			Quartz (Crystalline Silica)
Formaldehyde	100 mg/kg Rat	270 mg/kg Rat	0.578 mg/L Rat 4 h 250 ppm Rat 4h	Formaldehyde

**Additional Toxicological Information**

**Silica**

**Cancer:** This product contains crystalline silica (quartz). IARC has determined that crystalline silica inhaled in the form of quartz from occupational sources is carcinogenic to humans (Group 1). IARC concluded that there was sufficient evidence in humans and animals for the carcinogenicity of inhaled crystalline silica in the form of quartz from occupational sources. The NTP has classified silica as known to be a human carcinogen. The physical nature of this product may help limit any inhalation hazard from crystalline silica during application and in its hardened state. However, physical forces such as grinding, drilling and other demolition work on this product may liberate crystalline silica dust.

**Acute effects:** Exposure to silica dust can cause irritation of the eyes, nose and throat. Exposure to high concentrations can also cause Accelerated Silicosis causing progressive shortness of breath, fever, coughing, and weight loss.

**Chronic effects:** In addition to cancer, breathing of silica can cause damage to the lung tissue and silicosis after long exposure at low concentrations causing shortness of breath, fever, coughing, and weight loss. Prolonged and repeated exposure to respirable silica-containing dust may also cause autoimmune disease, kidney disease, tuberculosis, non-malignant respiratory disease, and bronchitis.

**Oxidized Asphalt**

**Cancer:** This product contains oxidized asphalt. Occupational exposures to oxidized asphalt and its emissions during roofing activities have been classified by the International Agency for Research on Cancer (IARC) as "probably carcinogenic to humans" (Group 2A). IARC based

this classification on its finding that available data from studies in humans points to an association between exposures to oxidized asphalts during roofing and cancers of the lung and upper digestive tract. IARC also determined there was sufficient evidence of carcinogenicity of extracts and condensates of oxidized asphalts in experimental animals. The oxidized asphalt in this product may contain small amounts of Polycyclic Aromatic Hydrocarbons (PAHs) some of which are recognized carcinogens in humans or experimental animals. Oxidized asphalt may also cause irritation of the respiratory tract. The physical nature of this product may help limit any inhalation hazard from oxidized asphalt during application in its hardened state. However, physical forces such as grinding, drilling and other demolition work on this product may liberate dust containing oxidized asphalt. Burning or heating of the product may cause fumes, vapors or mists.

**Acute effects:** Inhalation of dust may cause nose, throat, respiratory tract, and mucous membrane irritation. Eye contact may cause severe irritation, redness, tearing, and blurred vision. If ingested, may cause mouth, throat and gastrointestinal tract irritation and upset with possible nausea, vomiting and diarrhea. See Section 8 for exposure controls.

**Chronic effects:** In addition to cancer, prolonged or repeated skin contact may result in dryness and irritation of the skin. Long-term skin exposure to asphalt can increase sensitivity to the sun, and may cause discoloration. Oxidized asphalt may also cause irritation of the upper respiratory tract.

### Formaldehyde

**Cancer:** This product may contain extremely low levels of formaldehyde that are not expected to cause a health hazard under normal conditions of use. IARC and NTP have classified formaldehyde as a human carcinogen based on sufficient evidence that formaldehyde causes nasopharyngeal cancer in humans, limited evidence for cancer of the nasal cavity and paranasal in uses, and "strong but not sufficient evidence" for leukemia. The finding for leukemia reflects the epidemiologists' finding of strong evidence in human studies coupled with an inability to identify a mechanism for induction of leukemia. The physical nature of this product may help limit any inhalation hazard from formaldehyde during application and in its hardened state.

**Acute effects:** The major acute toxic effects caused by formaldehyde exposure via inhalation are eye, nose, and throat irritation and effects on the nasal cavity. Other effects seen from exposure to high levels of formaldehyde in humans are coughing, wheezing, chest pains, and bronchitis. Ingestion exposure to formaldehyde in humans has resulted in corrosion of the gastrointestinal tract and inflammation and ulceration of the mouth, esophagus, and stomach.

**Chronic Effects:** In addition to cancer, exposure to formaldehyde by inhalation in humans has been associated with respiratory symptoms and eye, nose, and throat irritation. Repeated contact with liquid solutions of formaldehyde has resulted in skin irritation and allergic contact dermatitis in humans.

## 12. ECOLOGICAL INFORMATION

### Ecotoxicity

No information available

### Persistence and degradability

No information available.

### Bioaccumulation potential

No information available.

### Other adverse effects

No information available

## 13. DISPOSAL CONSIDERATIONS

### Water treatment methods

#### **Disposal of waste**

This product, as supplied, is not regulated as a hazardous waste by the U.S. Environmental Protection Agency (EPA) under Resource Conservation and Recovery Act (RCRA) regulations. Comply with state and local regulations for disposal. If you are unsure of the regulations, contact the local Public Health Department, or the local office of the EPA.

## 14. TRANSPORTATION INFORMATION

### Shipping Information

This product is not classified as a hazardous material for transport.

### Freight Classification

Roofing composition or prepared roofing.

## 15. REGULATORY INFORMATION

### Toxic Substances Control Act (TSCA):

Some components in this product are listed on the TSCA Inventory.

### Comprehensive Environmental Response Compensation and Liability (CERCLA):

None

**Superfund Amendments and Reauthorization Act of 1986 (SARA), Title III, Section 302 Extremely Hazardous Substances:**


None

**Section 311/312 Hazard Categories:**

Immediate Health; Delayed Health; Fire Hazard

**Section 313 Reportable Ingredients:**

This material contains formaldehyde (CAS# 50-00-0), which is subject to the reporting requirements of Section 313 of SARA Title III and 40 CFR Part 373.

**California Proposition 65:**  **WARNING:** This product can expose you to chemicals, including bitumen, which is known to the State of California to cause cancer. For more information go to: [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov).

**16. OTHER INFORMATION, INCLUDING DATE OF PREPARATION OF THE LAST REVISION**

<b>NFPA</b>	<b>Health Hazard</b>	1	<b>Flammability</b>	1	<b>Instability</b>	0	<b>Physical and Chemical Properties</b>	-
<b>HMIS</b>	<b>Health Hazard</b>	1	<b>Flammability</b>	1	<b>Physical Hazards</b>	0	<b>Personal Protection</b>	B

<b>HEALTH: 1</b>
<b>FLAMMABILITY: 1</b>
<b>REACTIVITY: 0</b>
<b>PERSONAL PROTECTION: B</b>



*Chronic Hazard Star Legend*

\* = Chronic Health Hazard

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End of Safety Data Sheet