SAFETY DATA SHEET

SDS# 1004

1. PRODUCT AND COMPANY IDENTIFICATION

Product Name: USP® NVB Base CAS #: Mixture Generic Name: Asphaltic 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

Trade Name: USP® NVB Base

2. HAZARDS IDENTIFICATION

Classification

OSHA Regulatory Status

As defined in the OSHA Hazard Communication Standard, 29 CFR 1910.1200, the products listed below are considered articles and do not require an SDS. In addition, articles are not included in the scope of the Globally Harmonization System (GHS). As such, the GHS labeling elements are not included on this SDS. All components listed for this product are bound within the product. When the products are handled as intended and under normal conditions of use, there is no evidence that any of the ingredients are released in amounts that pose a significant health risk. Although these products are not subject to the OSHA Standard or GHS labeling elements US Ply shall disclose as much health and safety information as possible to ensure that this product is handled and used properly. This SDS contains valuable information critical to the safe handling and proper use of the product. This SDS should be retained and be made available for employees and other users of this product. In addition, the recommendations for handling and use of these products should be included in worker safety training programs.

General:

Under normal use conditions, this product is not expected to create any unusual emergency hazards. Note: This product is a mechanical irritant, and is not expected to produce any chronic health effects from acute exposures.

Appearance and Odor:

Membrane sheet in roll form with mineral and sand surfaces. Asphalt odor.

Potential Health Hazards:

Primary Exposure Routes:	
Primary:	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.
Eye Contact:	Not expected under normal conditions of use. Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do so. Continue rinsing. If eye irritation persists, get medical advice/attention.
Skin Contact:	Not expected under normal conditions of use. Wash with plenty of soap and water. If skin irritation occurs: Get medical advice/attention.
Ingestion:	This product is not intended to be ingested. If ingested, it may cause irritation of the digestive system.
Inhalation:	Not expected under normal conditions of use. Inhalation of excessive amounts of dust from the product may cause temporary upper respiratory irritation (scratchy throat), coughing and/or congestion in extreme exposures. Individuals affected should be moved to fresh air.

Medical Conditions Aggravated by Exposure:

Exposure to dust may aggravate pre-existing upper respiratory and lung diseases or conditions.

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

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3. COMPOSITION / INFORMATION ON INGREDIENTS

Substance Mixture

This product is an article.

This material is not considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).

Common Name

USP[®] NVB Base

GENERAL PRODUCT DESCRIPTION

USP NVB are mineral surfaced on both sides, asphalt coated, fiberglass reinforced membranes for use in built-up roofing. USP NVB has mineral granules on the underside and a mineral parting agent (Coal Slag) on the top surface.

CAS #	Weight - %	Trade Secret
64742-93-4	30-40	*
1317-65-3	10-30	*
n/a	39-52	*
n/a	7-13	*
n/a	2-4	*
14807-96-6	0-1	*
	64742-93-4 1317-65-3 n/a n/a n/a	64742-93-4 30-40 1317-65-3 10-30 n/a 39-52 n/a 7-13 n/a 2-4

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

4. FIRST AID MEASURES

Description of first aid measures	
General Advice	During installation, this product may release dust or fumes. Due to the large size of the particles, minimal exposure to airborne dust is expected. Primarily a nuisance dust. Asphalt and its fumes can irritate the skin, eyes and upper respiratory tract. If dust or fumes are inhaled to excess (e.g. in a confined work space) irritation of the upper respiratory tract may occur. See Section 11 for more details.
Eye Contact	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.
Skin Contact	Wash gently with soap and warm water to remove dust and fibers. 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.
Inhalation	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.
Ingestion	This product is not intended to be ingested. If ingested, it may cause temporary irritation to the digestive system. Rinse mouth with water to remove fibers, and drink plenty of water to help reduce the irritation.
Self-protection of the first aider	First aider: Pay attention to self-protection!

Most important symptoms and effects, both acute and delayed

Symptoms Upper respiratory passages, skin and eyes are primary exposure routes. As with any dust, pre-existing upper respiratory and lung diseases or conditions that may be aggravated.

Indication of any immediate medical attention and special treatment needed

Note to Physicians Treat symptomatically.

5. FIRE FIGHTING MEASURES

Suitable extinguishing media Dry chemical, dry powder, CO2, foam.	
Unsuitable extinguishing media	Avoid use of straight water spray.
Specific hazards arising from the chemical Not applicable	
Hazardous combustion products	Carbon dioxide and carbon monoxide.
<u>Explosion data</u> Sensitivity to Mechanical Impact Sensitivity to Static Discharge	Not sensitive. Not Sensitive

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.

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Firefighting equipment/inst	ructions No special procedures are expected to be necessary for this product. Normal firefighting procedures should be followed such as standard protective equipment including flame retardant coat, helmet with face shield, gloves, rubber boots, and in enclosed spaces, SCBA.
6. ACCIDENTAL RELEASE N	/IEASURES
Personal precautions, protective equip	nent and emergency procedures
Personal precautions	N/A
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.
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 Conversation 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 STORAG Precautions for safe handling	Ε
recations for safe nanoning	
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 a	ny incompatibilities
Storage Conditions	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). Warehouse storage should be in accordance with package directions.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control Parameters Exposure Guidelines

Read all product instructions before using. No ACGIH or OSHA PEL is assigned to this mixture.

- Exposure limits for the component materials are shown below. ٠
- This product, as supplied, is not believed to contain any hazardous material that exceeds exposure limits established by OSHA. •

	Chemical Name	ACGIH TLV	OSHA PEL
Asphalt (CAS 8-52-42-4)		TWA: 0.5 mg/m ³ benzene soluble aerosol fume, inhalable fraction	-
-	Calcium Carbonate (CAS 1317-65-3)	Total Dust: 10 mg/m ³ TWA Respirable Dust: 5 mg/m ³ TWA	TWA: 15 mg/m ³ total dust TWA: 5 mg/m ³ respirable fraction (vacated) TWA: 15 mg/m ³ total dust (vacated) TWA: 5 mg/m ³ respirable fraction
	containing no asbestos) CAS 14807-96-6)	2 mg/m ³ TWA (Particulate matter containing no asbestos and <1% crystalline)	Respirable Dust: (Less than 1% crystalline silicia) 2 mg/m ³ TWA ('Silicates')
	Crystalline silica (quartz) (CAS 14808-60-7)	TWA: 0.025 mg/m ³ respirable fraction	 (vacated) TWA: 0.1 mg/m³ respirable dust : (30)/(%SiO2 + 2) mg/m³ TWA total dust : (250)/(%SiO2 + 5) mppcf TWA respirable fraction : (10)/(%SiO2 + 2) mg/m³ TWA respirable fraction
Mineral Granules (may include the following):	Titanium Dioxide (CAS 13463-67-7)	15 mg/m3 TWA (total dust) 10 mg/m3 TWA (total dust)	10 mg/m3 TWA
ionowing).	Iron oxide	Respirable fraction: 5 mg/m ³ TWA	10 mg/m3 TWA (as fume) 15 mg/m3 TWA (total dust)
	Chromium (III) Compounds	-	As Cr, 0.5 mg/m ³ TWA
	Chromium, insoluble salts	-	As Cr, 1 mg/m ³ TWA
	Iron Oxide (1309-37-1)	Respirable fraction: 5 mg/m ³ TWA	10 mg/m3 TWA (as fume) 15 mg/m3 TWA (total dust)
Coal Slag (may include the	Silicon Dioxide (7631-86-9)	10 mg/m3 TWA	15 mg/m3 TWA (total dust) 10 mg/m3 TWA (as fume)
following):	Calcium Oxide (1305-78-8)	-	20 mppcf TWA; (80)/(% SiO2) mg/m3 TWA
	Aluminum Oxide (1344-28-1)	15 mg/m ³ TWA (Total Dust) 5 mg/m ³ TWA (Respirable fraction)	-

Appropriate engineering controls

Engineering Controls

No special ventilation systems are required when using this product.

Eye/face protection	Wear safety glasses with side shields (or goggles).
Skin and body protection	Leather or cotton gloves are recommended. Loose fitting, long-sleeved shirt and long pants and cap should be worn to protect skin from irritation dust. Construction grade work shoes are recommended.
Respiratory protection	Not required unless used with asphalt or coal tar mastics. In those cases, follow the specific precautions for the material being used.

9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Physical State	Solid	Odor	Asphaltic odor
Appearance	Various colors and surfaces. Thin	Odor threshold	Not available
Color	black asphaltic roll roofing Dark mat with black minerals and		
	granules		
Property	Values	<u>Remarks + Methods</u>	
рН	Not established		
Melting point/freezing point	None / $> 200 ^{\circ}\text{F}$		
Boiling point / boiling range	Not established		
Flash point	> 299 °C / 570 °F		
Evaporation rate	Not established		
Flammability (solid, gas)	Not established		
Flammability Limit in Air	Not established		
Upper flammability limit:	Not established		
Lower flammability limit:	Not established		
Vapor pressure	Not established		
Vapor density	Not established		
Specific Gravity	Not established		
Solubility in other solvents	Insoluble		
Partition coefficient	Not established		
Autoignition temperature	>460 °C / 860 °F		
Decomposition temperature	Not established		
Kinematic viscosity	Not established		
Dynamic viscosity	Not established		
Explosive properties	Not established		
Oxidizing properties	Not established		
Other Information			
Softening point	Not established		
Molecular weight	Not established		
VOC Content (%)	Not established		
Density	Not established		
Bulk density	Not established		
10. STABILITY AND I	REACTIVITY		

IO. STABILITY AND REACTIVIT

Reactivity

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

Chemical Stability

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

Possible hazardous reactions

None under normal use

Hazardous polymerization Will not occur

Conditions to avoid

Avoid heat, open flames and sparks.

Incompatible materials

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

Hazardous decomposition Products

Decomposition from this material are those that would be expected from any organic (carbon-containing) material. These decomposition products may include oxides of carbon (carbon dioxide, carbon monoxide, carbon particles, and hydrocarbons) are derived from burning.

11. TOXICOLOGICAL INFORMATION

Acute Toxicity

Dust from this product is an irritant and may cause irritation or scratchiness of the throat, and/or itching in the eyes and skin.

USP[®] NVB Base SDS #1004 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. This product is not intended to be ingested. If ingested, it may cause irritation of the digestive system. Ingestion Inhalation May cause irritation of the upper respiratory tract. Acute exposure may irritate mucous membranes with tightness in chest, coughing, wheeziness, or congestion. Individuals affected should be moved to fresh air. Skin contact May cause irritation (itching) to the skin. Skin irritation may be treated by gently washing affected area with soap and warm water. Contact with molten asphalt can result in physical injury/damage and thermal burns. Seek medical attention immediately in case of molten asphalt contact. Eye contact May cause irritation to the eyes. Eye irritation may be treated by flushing eyes with large amounts of water. If irritation persists, seek medical attention. Contact with hot product is abnormal and a possible emergency circumstance because of its adhesive and temperature features, the molten asphalt contact with eyes may cause physical eye damage due to adhesive properties as well as thermal burns. Seek medical attention immediately in case of eye contact with molten asphalt contact. **Component Information** The Statements below are provided for information purposes: * 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 non-volatile at ambient temperature. There is no data presented in the Monograph to demonstrate that Asphalt at ambient temperature is considered a carcinogen. * Asphalt (CAS # 8052-42-4 and oxidized asphalt 64742-93-4): The International Agency for Research on Cancer (IARC) has stated that studies of workers exposed to asphalt provide inadequate evidence of carcinogenicity. IARC had previously classified asphalt as a Group 3 substance. Animal studies in which high concentrations of asphalt fumes were breathed for extended periods of time did not indicate any cancer effects. Bronchitis and pneumonitis were observed. Two studies where condensed fractions of certain asphalt fume condensates collected for these studies were repeatedly applied to the skin of laboratory animals reported the induction of skin cancers. The asphalt fume condensates collected for these studies were subjected to extremely high temperatures (601°F/316°C) and were heated for seven to ten hours while being continually stirred. This is not typical of any asphalt application. Trace amounts of polynuclear aromatic hydrocarbons (PAHs) may be present in some asphalts and can be generated upon excessive heating, which results in thermal cracking of the asphalt compounds. Some of these PAHs have been identified as having potential carcinogenic and reproductive health effects. * Crystalline silica is considered a hazard by inhalation. The International Agency for Research on Cancer (IARC) has classified crystalline silica as a Group 1 substance, carcinogenic to humans. This classification is based on the findings of laboratory animal studies (inhalation and implantation) and epidemiological studies that were considered sufficient to carcinogenicity. Excessive exposure to respirable crystalline silica can cause silicosis, a non-cancerous lung disease.

Chemical Name	CAS #	Oral LD50	Dermal LD50	Inhalation LC50
Asphalt (at Ambient Temperature)	8052-42-4	> 5000 mg/kg (Rat)	> 2000 mg/kg (Rabbit)	-
Crystalline Silica (quartz)	14808-60-7	> 500 mg/kg (Rat)	-	-
Titanium Dioxide	13463-67-7	> 10000 mg/kg (Rat)	-	-

Crystalline silica has not been classified by the Occupational Safety and Health Administration (OSHA).

* Estimates for product may be based on additional component data not shown.

Information on toxicological effects

Symptoms

No information available for this product.

Carcinogenicity

There is no data for this product as a whole.

The table below indicates whether each agency (IARC, NTP, or OSHA) has listed any ingredient as a carcinogen.

Chemical Name	CAS #	ACGIH	IARC	NTP	OSHA
Asphalt (at Ambient Temperature)	8052-42-4	-	2B	-	-
Quartz	14808-60-7	A2	1	Known	Х
Titanium Dioxide	13463-67-7	A4	2B	-	-
Talc	14807-96-6	A4	3	-	-

Legend

Legena			
ACGIH (American Conference of Governmental Industrial Hygienists)		IARC (International Agency for Research on Cancer)	
A1	Known Human Carcinogen	Group 1	Carcinogenic to Humans
A2	Suspected Human Carcinogen	Group 2A	Probably Carcinogenic to Humans
A3	Animal Carcinogen	Group 2B	Possibly Carcinogenic to Humans
A4	Not Classified as a Human Carcinogen	Group 3	Not Classifiable as a Human Carcinogen

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NTP (National Toxicology Program)		OSHA (Occupa	ational Safety and health Administration of the US Department of Labor)		
	Known	Known Carcinogen	X	Present	
	Reasonably Anticipated	Reasonably Anticipated to be a Human Carcinogen			

Reproductive toxicity: Developmental Toxicity	Based on available data, the classification criteria are not met. None Known
Teratogenicity	None Known
STOT – Single exposure:	No information available
STOT – Repeated exposure:	No information available
Aspiration hazard:	No information available

Numerical measures of toxicity - No information available

12. ECOLOGICAL INFORMATION

Ecotoxicity

No information available.

Persistence and degradability

No information available.

Bioaccumulation potential

No information available.

Chemical Name	Partition coefficient
Asphalt (at Ambient Temperature) – 8052-42-4	> 6

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 Conversation 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.				
Contaminated packaging	Not applicable				
14. TRANSPORTATIO	ON INFORMATION				
DOT	Not regulated				
<u>TDG</u>	Not regulated				
MEX	Not regulated				
ICAO (air)	Not regulated				
IATA	Not regulated				
<u>IMDG</u>	Not regulated				
RID	Not applicable in the United States.				
ADR	Not applicable in the United States.				
ADN	Not applicable in the United States.				

15. REGULATORY INFORMATION

<u>International Inventories</u> TSCA DSL/NDSL	All of the components of this product are listed on the US TSCA (Tocix Substances Control Act) Inventory or are exempt. All of the components of this product are listed on the DSL.
Logond	
Legend	
TSCA	United States Toxic Substances Control Act Section 8(b) Inventory
DSL/NDSL	Canadian Domestic Substances List/Non-Domestic Substances List
EINECS/ELINCS	European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances
ENCS	Japan Existing and New Chemical Substances
IECSC	China Inventory of Existing Chemical Substances
KECL	Korean Existing and Evaluated Chemical Substances

Philippines Inventory of Chemicals and Chemical Substances Australian Inventory of Chemical Substances

There is no regulation on this product as a whole.

SARA Title III:

None of the products components are listed under SARA Section 302 (40 CFR 355 Appendix A), SARA Section 313 (40 CFR 372.65) or CERCLA (40 CFR 302.4).

SARA 313:

CWA (Clean Water Act)

This product does not contain any substances regulated as pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR.122.42)

CERCLA

This material, as supplied, does not contain any substances regulated as hazardous substances under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302).

US State Regulations

This product contains the following Proposition 65 chemicals.

This product contains chemicals (small amounts of some polynuclear aromatic hydrocarbons) known to the State of California to cause cancer.

Chemical Name	California Proposition 65		
Quartz – 14808-60-7	Carcinogen		

U.S. State Right-to-Know Regulations

This product contains the following substances regulated by various State Right-to-Know regulations

Chemical Name	CA	FL	MA	MN	NJ	РА
Asphalt (CAS 8052-42-4)	YES	NO	YES	YES	YES	YES
Quartz (CAS 14808-60-7)	YES	NO	YES	YES	YES	YES
Continuous filament glass fibers (CAS 65997-17-3)	NO	NO	NO	YES	NO	NO
Titanium Dioxide (CAS 13463-67-7)	NO	NO	YES	YES	YES	YES
Talc (CAS 14807-96-6)	YES	NO	YES	YES	YES	YES

U.S. EPA Label Information

EPA Pesticide Registration Number

Not Applicable

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

<u>NFPA</u>	Health Hazard	1	Flammability	1	Instability	0	Physical and Chemical Properties
HMIS	Health Hazard	1	Flammability	1	Physical Hazards	0	Personal Protection
Chronic Hazard Star Legend *= Chronic Health Hazard							

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Prepared by: U.S. PLY, INC. Technical Services Department P.O. Box 163980 Fort Worth, TX USA 76161

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End of Safety Data Sheet