SAFETY DATA SHEET

SDS# 1000

1. PRODUCT AND COMPANY IDENTIFICATION

Product Name: Atactic Polypropylene (APP) Modified Bitumen Roofing Sheets
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: DURAWELD 4S APP, DURAWELD 4M APP, DURAWELD 5S APP, DURAWELD 4MFR APP, TUFFCAP 190S APP, TUFFCAP 190M APP, USP 160S APP, USP 160M APP, USP 160S PLUS APP, SAFEWELD APP BASE, SAFEWELD 180S APP, SAFEWELD 180S APP, SAFEWELD 180M APP, SAFEWELD 180FR APP, SAFEWELD X4S APP, SAFEWELD X4M APP, SAFEWELD X4FR APP, ALL WEATHER 190 SMOOTH, ALL WEATHER 190 GRANULATED, ALL WEATHER APP #85GM FIBERGLASS, USP APP WALKBOARD

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.

Appearance and Odor:
Black sheet in roll form. Surfaces may include roofing granules, sand, slag, talc or a polyethylene film. Slight asphaltic odor when heated.

Potential Health Hazards:

Primary Exposure Routes:

Primary:	Nuisance dust - inhalation, irritation - skin and eye 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.
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.
Ingestion:	This product is not intended to be ingested. If ingested, it may cause irritation of the digestive system.
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.

Acute Health Hazards:
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).

Chronic Health Hazards:
Occupational exposures to asphalt, oxidized asphalt, silica and formaldehyde, which may occur from these products during abnormal conditions of use or emergencies, have been found to be probable or known human carcinogens, and may cause serious irreversible lung disease and other non-cancerous effects. See Section 11 of this document.

Medical Conditions Aggravated by Exposure:
Exposure to dust may aggravate pre-existing upper respiratory and lung diseases or conditions.

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 Atactic Polypropylene (APP) Modified Bitumen Roofing Sheets

Chemical Name	CAS #	Weight - %	Trade Secret
Asphalt	8052-42-4	45-65	*
Calcium Carbonate	1317-65-3	25-35	
Polypropylene (atactic and isotactic)	9003-07-0	20-30	*
Crystalline Silica	14808-60-7	0.1-1	
Granules	n/a	0-40	
Coal Slag	n/a	0-35	
Calcium Borate	12007-56-6	0-30	*
Polyester fiber	n/a	0-10	*
Fiberglass Mat or Filament glass fiber	65997-17-3	0-10	*
Talc (containing no asbestos fibers)	14807-96-6	0-10	
Polyethylene	9002-88-4	0-5	*
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.			

Granules are used only on products with an M suffix and an FR suffix. It is not used on products with an S suffix.

Coal Slag is a mixture containing Amorphous Silicon Dioxide, Aluminum Oxide, Iron Oxide, Calcium Oxide, Potassium Oxide, Titanium Oxide, Magnesium Oxide, Sodium Oxide, Quartz, Cristobalite, and Beryllium. See also Sections 8 and 11 of this document. Coal Slag is used as a bottom surfacing on certain SafeWeld brand products.

Calcium Borate (colemanite) are used only in products with an FR suffix. It is not used on products without an FR suffix.

DuraWeld, SafeWeld 180, TuffCap, All Weather 190, and USP 160 brand products use polyester fiber and may also contain a filament glass fiber. SafeWeld X4 brand products use a combination of fiberglass mat and polyester fiber. All Weather APP Glass Cap and SafeWeld APP Base uses a fiberglass mat and does not use a polyester or filament glass fiber.

Talc is used as a top surfacing on products with an S suffix and SafeWeld APP Base. It is not used on any granule surfaced products.

Polyethylene is used as a bottom film surfacing on DuraWeld, TuffCap, All Weather, and USP 160 products. It is not used on any SafeWeld brand products.

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, water fog or water spray.

Unsuitable extinguishing media Not applicable

Specific hazards arising from the chemical
Not applicable

Hazardous combustion products Carbon dioxide and carbon monoxide.

Explosion data
Sensitivity to Mechanical Impact Not sensitive.
Sensitivity to Static Discharge 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.

Firefighting equipment/instructions 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 MEASURES

Personal precautions, protective equipment 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 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 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.
- 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	NIOSH IDLH
Asphalt (CAS 8-52-42-4)	TWA: 0.5 mg/m³ benzene soluble aerosol fume, inhalable fraction	-	Ceiling: 5 mg/m³ fume 15 min
Calcium Carbonate (CAS 1317-65-3)	-	TWA: 15 mg/m³ total dust TWA: 5 mg/m³ respirable fraction (vacated) TWA: 15 mg/m³ total dust (vacated) TWA: 5 mg/m³ respirable fraction	TWA: 10 mg/m³ total dust TWA: 5 mg/m³ respirable dust
Crystalline silica (quartz) (CAS 14808-60-7)	TWA: 0.025 mg/m³ 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	IDLH: 50 mg/m³ respirable dust TWA: 0.05 mg/m³ respirable dust
Calcium Borate (colemanite) (12007-56-6)	-	-	15 mg/m³
Continuous filament glass fibers (CAS 65997-17-3)	1 fiber/cm³ TWA - respirable fibers	-	5 mg/m³ - TWA (inhalable fraction)
Talc (containing no asbestos) (CAS 14807-96-6)	2 mg/m³ TWA (Particulate matter containing no asbestos and <1% crystalline)	Respirable Dust: (Less than 1% crystalline silicia) 2 mg/m³ TWA ('Silicates')	
None of the components in this product are listed by IARC, NTP, OSHA or ACGIH as a carcinogen.			

Appropriate engineering controls

Engineering Controls No special ventilation systems are required when using this product.

Individual protection measures, such as personal protective equipment

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 black asphaltic roll roofing	**Odor threshold**	Not available
Color	Black		

Property	Values	Remarks + Methods
pH	Not established	
Melting point/freezing point	> 143 °C / 290 °F	
Boiling point / boiling range	Not established	
Flash point	> 260 °C / 500 °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	Not established
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 REACTIVITY

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.

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	This product is not intended to be ingested. If ingested, it may cause irritation of the digestive system.
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.

* 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.

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)	-	-
Calcium Borate (Colemanite)	12007-56-6	> 5600 mg/kg (Rat)	-	-
Polyethylene	9002-88-4	-	-	12 g/m^3/30M (Mouse)
* 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	X
Continuous filament glass fibers	65997-17-3	A4	3	-	-
Polypropylene	9003-07-0	-	3	-	-
Talc	14807-96-6	A4	3	-	-
Polyethylene	9002-88-4	-	3	-	-

Legend			
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***
NTP (National Toxicology Program)		***OSHA (Occupational 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: Based on available data, the classifcication criteria are not met.
Developmental Toxicity 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

The following values are calculated based on chapter 3.1 of the GHS document. For exterior use only. Do not use indoors.

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

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 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. TRANSPORTATION INFORMATION

DOT Not regulated

TDG Not regulated

MEX Not regulated

ICAO (air) Not regulated

IATA Not regulated

IMDG 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

International Inventories
TSCA All of the components of this product are listed on the US TSCA (Tocix Substances Control Act) Inventory or are exempt.
DSL/NDSL All of the components of this product are listed on the DSL.

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

US Federal Regulations
There is no regulation on this product as a whole.

SARA 313
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).

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.

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	PA
Asphalt (CAS 8052-42-4)	NO	NO	NO	NO	YES	NO
Calcium Carbonate (Limestone) (CAS 1317-65-3)	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
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

NFPA	**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

Issue Date: 5/09/2023
Last Revision Date: 6/16/2023
Original Issue Date: 9/24/2004
Revision Disclosure: 12/23/2013

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

The information and recommendations provided in this Safety Data Sheet are presented in good faith and believed to be correct as of the date hereof. The manufacturer makes no representations as to the completeness or accuracy thereof. Information supplied upon the condition that the persons receiving said information will make their own determination as to its suitability for their particular purpose prior to use. In no event will the manufacturer be responsible for damages of any nature whatsoever resulting from the use of or reliance upon information. No representations or warranties, either expressed or implied, including the merchantability or fitness for a particular purpose are made herein with respect to this information or the product to which information refers. Information contained herein is deemed to be reliable, conservative and accurate. U.S. PLY, Inc. reserves the right to change the design, specification or any other features at any time, without notice, while otherwise maintaining regulatory compliance.

End of Safety Data Sheet