

MATERIAL SAFETY DATA SHEET

1. PRODUCT and COMPANY IDENTIFICATION

Manufacturer

U.S. PLY, INC.
P.O. Box 2505
Pt. Arthur, TX 77643

Non Emergency Information

Telephone: U.S. PLY, INC. (877) 628-7759 or (409) 982-1918

Emergency Information

Transportation Emergency Telephone: 1-800-424-9300.

Product Name: USP TYPE IV GLASS PLY SHEET, USP TYPE VI PREMIUM GLASS PLY SHEET

Chemical Name: Asphalt Mixture/Asphalt Coated Roll Roofing

2. COMPOSITION (Information on Ingredients)

| Component | CAS No | Weight % |
|--|------------|----------|
| Chemical Name (common names) | | |
| Asphalt, oxidized | 64742-93-4 | 70-75 |
| Crystalline Silica* | 14808-60-7 | 20-25 |
| Continuous filament glass fibers | 65997-17-3 | 1-5 |
| See Section 8 of this MSDS for Exposure Guidelines | | |

* USP Type IV Glass Ply Sheet, USP Type VI Premium Glass Ply Sheet are 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.

3. HAZARDS IDENTIFICATION

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 (H₂S), an extremely toxic gas, may be emitted from heated asphalt and may accumulate in storage tanks and other confined spaces. At low concentrations, H₂S is irritating to the eyes, nose and throat, and at high concentrations (>500ppm) can cause rapid unconsciousness and death. The odor of H₂S 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 fire fighting 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

Primary: Inhalation (breathing dust), skin contact and eye contact.

Inhalation: 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.

Skin Contact: Temporary irritation (itching) or redness may occur. Contact with molten asphalt can result in burns.

Absorption: Not applicable

Eye Contact: 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.

Ingestion: 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.

4. FIRST AID MEASURES

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.

Skin Contact: 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.

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.

Ingestion: This product is not intended to be ingested. In case of ingestion seek medical attention immediately.

Note: 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.

5. FIRE FIGHTING MEASURES

Flash Point: N/A

Flammable Limits:

Lower Explosive Limit N/A

Upper Explosive Limit N/A

Auto Ignition: N/A

General Fire Hazards: There is no potential for fire or explosion.

Extinguishing Media: Foam, CO2, dry chemical or water spray

Special Fire-fighting Procedures: Combustible. Avoid breathing fumes. Wear self-contained breathing apparatus (SCBA) with full face mask and full protective clothing.

Unusual Fire and Explosive Hazards: When heated, fumes may burn if ignition source is provided. Petroleum asphalt fumes can explode if emitted in an enclosed environment and supplied with an ignition source. Burning product will cause thick black smoke.

6. ACCIDENTAL RELEASE MEASURES

Personal Precautions: N/A

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.

Clean-up Methods: 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

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.

Storage: 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.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Read all product instructions before using. Personal protective equipment should include safety eye wear, fire resistant gloves, and long sleeve work clothes to prevent excessive skin contact. No special ventilation systems are required under normal conditions of use in well ventilated areas.

| Exposure Guidelines | OSHA | ACGIH |
|-------------------------------|--|---|
| Crystalline Silica 14808-60-7 | Respirable Dust: 0.1 mg/m ³ TWA | 0.05 mg/m ³ TWA (This TLV is for the respirable fraction of dust) |

See Section 11 – Toxicological Information for component carcinogenicity.

9. PHYSICAL AND CHEMICAL PROPERTIES

| | | | |
|-------------------|-------------------------|----------------------|------------------|
| Physical State: | Solid | Self-Flammability: | None Established |
| Appearance: | Dark mat with sand. | Auto-Flammability: | None Established |
| Odor: | Asphaltic odor | pH: | N/A |
| Specific Gravity: | Variable | Vapor Pressure: | N/A |
| Boiling Point: | over 700°F (over 370°C) | Solubility in Water: | Not soluble |
| Flash Point: | Not Determined | Explosion data: | N/A |
| Melting Point: | over 200°F (over 95°C) | VOC: | N/A |

10. STABILITY AND REACTIVITY

Chemical Stability

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

Incompatibility

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

Hazardous Decomposition

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

Hazardous Polymerization

Will not occur.

11. TOXICOLOGICAL INFORMATION

Acute Toxicity

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

Carcinogenicity

There is no data for this product as a whole.

Component Carcinogenicity

| | |
|---------------------------------|---|
| Crystalline Silica (14808-60-7) | ACGIH: A2 – Suspected Human Carcinogen |
| | NTP: Known Carcinogen (Select Carcinogen) |
| | IARC: Monograph 68, 1997; (inhaled in the form of quartz or cristobalite from occupational sources) (Group 1 (carcinogen to humans)) |

Additional toxicological Information

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 for carcinogenicity. Excessive exposure to respirable crystalline silica can cause silicosis, a non-cancerous lung disease. Crystalline silica has not been classified by the Occupational Safety and Health Administration (OSHA).

This material is in a solid form; therefore, exposures to hazardous dusts or fumes are not expected to occur. Exposure limits are given for reference only.

Asphalt: 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 chronic health effects are known to be associated with exposure to continuous filament fibreglass. Results from epidemiologic studies have not shown any increases in respiratory disease or cancer. The IARC has classified continuous filament fibreglass as a Group 3 substance, not classifiable as to its carcinogenicity to humans. Because of the large diameter of continuous filament fibers, these products are not considered respirable.

12. ECOLOGICAL INFORMATION

General Product Information: No additional information is available.

13. DISPOSAL CONSIDERATIONS

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)

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

Comprehensive Environmental Response, Compensation and Liability Act (CERCLA):

None

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).

Section 311/312 Hazard Categories:

- Immediate Health
- Delayed Health
- Fire Hazard

California Proposition 65:

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

16. OTHER

NFPA: Fire 1; Health 1; Reactivity 0

HMIS: Flammability 1; Health 1; Reactivity 0

Prepared by:

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Issue Date: 6/01/04