

MATERIAL SAFETY DATA SHEET TELEPHONE: (216)292-5000

3735 GREEN ROAD

BEACHWOOD, OHIO 44122-8068

EMERGENCIES: (216)765-6727 8:30-5:00 EST AFTER HOURS: CHEMTREC (800)424-9300

_____ SECTION 1 Order Code: 036PRFR601 Product Name: POWERPLY PREMIUM FR Chemical Name: Chemical Family: Roofing Felt Date Prepared: 25-OCT-99 Product Code: 036-PRFR MSDS Preparer: R. A. MIKOL Replaces Date: N/A Other Applications: This material safety data sheet also applies to ${\tt 034-prfr}$ _____ Section 2 - Molecular Composition _____ Common Name and Chemical Name Weight % CAS Number Exposure Limits ASPHALT 30.0-40.0 8052-42-4 OSHA:TWA -STEL -5 mg/M3 STEL -ACGIH:TWA (fumes) RHYOLITIC ARGILLITE 25.0-35.0 NONE OSHA:TWA 15 mg/M3 STEL (total nuisance dust) 10 mg/M3 STEL -ACGIH:TWA (total nuisance dust) 15.0-20.0 Trade Secret FIRE RETARDANT OSHA:TWA 15 mg/M3 STEL (total nuisance dust) _ ACGIH:TWA 10 mg/M3 STEL (total nuisance dust) STYRENE-BUTADIENE-STYRENE BLOCK RUBBER 5.0-10.0 9003-55-8 OSHA:TWA -STEL ACGIH: TWA STEL CRYSTALLINE SILICA (QUARTZ) 2.0-5.0 14808-60-7 OSHA:TWA 0.10 mg/M3 STEL (respirable dust) ACGIH:TWA 0.10 mg/M3 STEL _ (respirable dust) FIBROUS GLASS 2.0-4.0 65997-17-3 OSHA:TWA -OCTH:TWA 10 mg/M3 STEL ACGIH: TWA (dust) FIRE RETARDANT 1.0-3.0 Trade Secret OSHA:TWA STEL ACGTH: TWA _ STEL _ KAOLIN 1.0-2.0 66402-68-4 (CLAY) OSHA:TWA 10 mg/M3 STEL (total dust, 2mg/M3 respirable fraction) ACGIH: TWA 2.00 mg/M3 STEL (total dust, no asbestos, <1% SiO2) 1.0-2.0 SODIUM SILICATE 1344-09-8 OSHA:TWA 15 mg/M3 STEL ACGIH:TWA 10 mg/M3 STEL (total nuisance dust) _ ACGIH: TWA _ (total nuisance dust) Felt is coated with hot bitumen during manufacture. Workers must comply with health and safety precautions outlined in subsequent sections. Under current criteria finished product is not considered hazardous to health. _____ Section 3 - Hazards Identification _____ Emergency Overview: White granules on black roofing membrane. During manufacture, hot material can cause burns. If on skin or eyes apply cold water immediately and get medical attention as soon as possible. ****** Potential Hlth Effect/Rte of Entry: Inhalation: During manufacture, vapors from hot material may cause nose, throat, and An **RPM** Company

mucous membrane irritation, nausea, headaches, and dizziness. Eyes: During manufacture, vapors form hot material may cause severe irritation or corrosive burns. Ingestion: May cause mouth, throat, and gastrointestinal irritation, nausea, vomiting, and diarrhea. Aspiration during swallowing or vomiting may cause lung damage and maybe fatal. Skin: Prolonged or repeated contact may cause dryness, cracking, and irritation. Long-term exposure may increase sensitivity to the sun and cause discoloration. If product is heated, thermal burns may occur. Aggravated Medical Conditions: Pre-existing eye, skin and respiratory disorders may be aggravated by exposure. Acute Health Effects: See effects described above. Chronic Health Effects: Prolonged or repeated skin contact with asphalt in these products may result in irritation and dermatitis. Although a direct association between asphalt and cancer or other lung disease has not been established in man, asphalts contain variable amounts of polycyclic aromatic hydrocarbons and other volatiles which have been shown to cause cancer and respiratory damage in animals. Inhalation of crystalline silica (quartz) can cause cancer based on animal data, and IARC concludes sufficient evidence in humans (Group 1). Prolonged and repeated overexposure to free crystalline silica dust above the TLV level may cause scarring of the lungs with cough and shortness of breath. A delayed lung injury, silicosis may result from breathing free silica. OSHA considers fibrous glass dust a nuisance dust. No chronic hazard. Acute hazards are dermatitis, local irritation. ACGIH TLV is 10mg/m3 total dust. _____ Section 4 - First Aid Measures _____ Inhalation: Leave area to breathe fresh air. Avoid further overexposure. If symptoms persist, get medical attention immediately. Eyes: Apply cold water immediately and get medical attention as soon as possible. Ingestion: Ingestion of hot material is not probable. Skin: Apply cold water immediately and get medical attention as soon as possible. Notes to Physician: If hot material strikes the skin, immediately drench or immerse the area in water to assist cooling. If available, apply iced water or ice packs to the burned area. (DO NOT use iced water or ice packs if the burned area covers greater than 10% Of the body, as this may contribute to shock.) DO NOT try to remove asphalt from a burn after it has cooled. Seek medical attention. Medical personnel can soften and remove cooled asphalt with petroleum jelly. For contact with cold material, clean with a waterless hand cleaner, then wash with mild soap and water. If irritation persists, seek medical attention. _____ Section 5 - Fire Fighting Measures _____ _____ Flash Point: >500 F Method: PM CC Lower Flammability Limit: NOT ESTABLISHED Upper Flammability Limit: NOT ESTABLISHED Autoignition Temperature: NOT APPLICABLE Extinguishing Media:

Water fog, carbon dioxide, dry chemical.

Fire and Explosion Hazards: Not Applicable Special Fire Fighting Procedures: During a fire, personnel at the scene are to prevent exposure to fumes using accepted fire fighting techniques. Fire Fighting Equipment: N/A Other Precautions: Not Applicable _____ Section 6 - Accidental Release Measures _____ Release Response Overview: Transfer to appropriate container for disposal. _____ Section 7 - Handling and Storage _____ Handling and Storage Precautions: Store under normal warehouse conditions. During manufacture, caution must be used to prevent contact with hot material. Prevent inhalation of vapor. Change soiled workclothes frequently. Clean hands thoroughly after handling. Personal protective equipment must be worn during maintanence or repair of contaminated mixer, reactor, or other equipment. _____ Section 8 - Exposure Controls/Personal Protection Respiratory: During manufacture, use NIOSH/MSHA approved organic vapor respirator when the vapor concentration exceeds the exposure limits indicated in Section 2 Skin: During manufacture, protect hands with heat resistant gloves and use slip resistant shoes impervious to hot bitumens. Protect hands with suitable gloves when handling finished product. Eyes: During manufacture, use chemical splash goggles. Face: During manufacture, face shield is recommended. Engineering: During manufacture, use local exhaust when the general ventilation is not sufficient to keep the airborne contaminant concentration below the exposure limit in Section 2. _____ Section 9 - Physical and Chemical Properties _____ Odor/Appearance: SLIGHT/WHITE GRANULED ROOFING MEMBRANE Color: BLACK/WHITE Physical State: SOLID pH: N/A NOT APPLICABLE NOT APPLICABLE Vapor Pressure: Vapor Density: NOT ESTABLISHED >250 F NOT APPLICABLE Boiling Point: Melting Point: Freezing Point: Solubility in Water: NEGLIBIBLE Specific Gravity: 1.0 % Volatile Weight: 0.0 _____ Section 10 - Reactivity/Stability -----_____ Stability: Stable Incompatible Products: Not Applicable

Conditions to Avoid Polymerization: Not Applicable _____ Section 11 - Toxicological Information _____ Eyes: SEE SECTION 3 Ingestion: " Inhalation: Skin: ш ... Subchronic: Chronic: _____ Section 12 - Ecological Information _____ N/A Ecotoxicological Data: Chemical Fate: N/A _____ Section 13 - Disposal Considerations _____ RCRA Class: N/A Disposal Method: Not regulated by RCRA. Dispose of in compliance with state and local regulations. EPA Reportable Quantities _____ N/A _____ Section 14 - Transportation Data _____ DOT Shipping Name: NOT REGULATED DOT Hazard Class: DOT Label: UN/NA Number: Packing Group: Special Provisions: Packaging _____ Exceptions: Non-Bulk: Bulk: Quantity Limitations _____ Passenger Aircraft or Railcar: Cargo Aircraft: Vessel Stowage Requirements Vessel Stowage: Other Stowage: Transportation Notes: N/A _____ Section 15 - Regulatory Information _____ On the TSCA Inventory Considered hazardous based on the following criteria: TSCA Status: OSHA Status: Irritant Target Organs _____ Lung Skin

OSHA Hazardous Components CAS Number _____ _____ KAOLIN (CLAY) 66402-68-4 * CRYSTALLINE SILICA (QUARTZ) 14808-60-7 8052-42-4 ASPHALT * - CHEMICAL IS LISTED AS AN IARC, NTP, OSHA, Or ACGIH CARCINOGEN Compliance Quantites _____ N/A SARA 311 Ratings _____ Immediate Health Hazard: Ν Delayed Health Hazard: Y Fire Hazard: N Reactivity Hazard: Ν Sudden Release of Pressure Hazard: N SARA 313 Ingredients _____ _ _ _ _ _ No SARA 313 Ingredients Proposition 65 Ingredients _____ Chemicals known to the State of California to cause cancer, birth defects and/or other reproductive harm. CAS Number _____ _____ CRYSTALLINE SILICA (QUARTZ) 14808-60-7 ASPHALT 8052-42-4 _____ Section 16 - Other Information _____ FOR INDUSTRIAL USE ONLY. KEEP OUT OF REACH OF CHILDREN. THE HAZARD INFORMATION HEREIN IS OFFERED SOLELY FOR THE CONSIDERATION OF THE USER, SUBJECT TO HIS OWN INVESTIGATION OF COMPLIANCE WITH APPLICABLE REGULATIONS, INCLUDING THE SAFE USE OF THE PRODUCT UNDER EVERY FORESEEABLE CONDITION.