Material Safety Data Sheet

PRODUCT IDENTIFICATION

THIS MSDS IS FURNISHED FOR A GROUP OF PRODUCTS WHICH HAVE SIMILAR PROPERTIES DURING NORMAL CONDITIONS OF USE, BUT WHICH MAY EMIT DISSIMILAR THERMAL DEGRADATION BYPRODUCTS IF OVERHEATED. FOR MORE SPECIFIC INFORMATION, PLEASE CALL 1-800-424-9300.

Product Name: Heat-Shrinkable Non-Flame-Retardant Chemical Name: Not applicable

> CAS #: Not applicable Polyolefin Products

DOT Proper Shipping Name: Not regulated DOT Identification No.: Not regulated Manufacturer: **Berry Plastics**

DOT Hazard Classification: Not regulated **Corrosion Protection Group**

9635 Heinrich Hertz Dr St-9 TSCA Inventory Status: Exempt San Diego, CA 92154

FOR CHEMICAL EMERGENCY, SPILL, LEAK, FIRE, EXPOSURE or ACCIDENT

Call CHEMTREC - Day or Night - 1-800-424-9300 Toll Free in the continental U.S., Hawaii, Puerto Rico, Canada,

Alaska or Virgin Islands. Outside the United States call: (703) 527-3887 (collect calls accepted)

FOR OTHER TECHNICAL/HEALTH/SAFETY INFORMATION: (619) 424-4226

HAZARDOUS INGREDIENTS

Heat-Shrinkable Polymeric Products are not hazardous during proper installation but may emit hazardous thermal decomposition and combustion byproducts if overheated to degradation. See "Thermal Degradation and Combustion Byproduct" section of this MSDS for more specific information. Base polymer materials include polyethylene and olefin copolymers. Heat-shrinkable products may be coated with or used in conjunction with adhesives/mastics which are based on olefin copolymers or polyamides. Larger products may be coated on their exterior with an acrylic-based temperature-sensitive paint which indicates to the installer when sufficient heat has been applied to cause the adhesive to flow.

PRODUCT APPLICATIONS

Typical uses of heat-shrinkable polymeric products include primary electrical insulation, EMI/RFI shielding, cable jacketing and repair, strain relief, waterproofing, cable/pipe identification, corrosion protection, environmental/mechanical protection, and cable joining, splicing, and termination in telecommunications applications.

PHYSICAL PROPERTIES

Appearance and Odor: Plastic tubing, wrap-around sleeves, and molded parts in a variety of shapes, sizes and colors. No odor.

Boiling Point: Not applicable Vapor Pressure (mm Hg @ 20°C): Not applicable

Volatility (% by Volume): Not applicable Vapor Density: Not applicable

Specific Gravity (Water=1): 1.2 - 2.0 g/cc Evaporation Rate: Not applicable

Flash Point (°F)/Method: Not applicable Solubility In Water (%): Insoluble

HEALTH HAZARD INFORMATION

Exposure Limits: There are no established exposure limits for polymer mixtures.

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Acute (Short-Term Exposure):

Eye Contact: Contact with molten material may cause thermal burns.

Skin Contact: This product is not expected to be a skin irritant. Contact with the molten material may cause thermal

burns. No harmful effects are expected from skin absorption of this product.

Ingestion (Swallowing): Ingestion of this product is highly unlikely. There is insufficient information available on this

material to predict the effects from ingestion.

Inhalation (Breathing): In common with most organic materials, thermal degradation and combustion byproducts may be toxic

and should not be inhaled. (See Comments below and the Thermal Degradation and Combustion

Byproducts Section for more specific information.)

Chronic (Long-Term Exposure):

None of the ingredients to which users may be exposed and which are present at equal to or greater than 0.1% of the

product, are listed by OSHA, NTP, or IARC as suspect carcinogens.

Comments: Overheating the product to charring or burning may produce vapors that may cause eye, skin, nose and throat irritation.

Persons with pre-existing eye, skin, or respiratory disorders (e.g., asthma conditions) may be more susceptible to the

effects of these vapors.

STORAGE, HANDLING, AND PREVENTIVE MEASURES

Stability at room temperature: This product is stable under normal conditions.

Conditions to Avoid: Avoid overheating of product.

Incompatibilities (Materials to Avoid): None known.

Hazardous Polymerization: Will not occur. No known polymerization conditions to avoid.

Thermal Degradation and Combustion Byproducts: In common with most organic materials, degradation and combustion byproducts may be toxic and should not be inhaled. Thermal degradation is not significant at temperatures achieved during proper installation, as directed by product installation guides. At temperatures higher than those recommended for proper installation, most significantly if the product burns, thermal degradation and combustion byproducts will depend on the base polymer used, and may include, but are not limited to, carbon monoxide, carbon dioxide, aldehydes, acetic acid, low molecular weight hydrocarbons, and oxides of nitrogen and sulfur.

Handling: For products containing a thermochromic temperature indicator, discontinue heating after the color changes from red to colorless. Avoid any vapors given off if the product is heated to decomposition, as shown by a darkening and browning of the sleeve. Avoid contact with molten material. Heat-resistant gloves are required if hot products are handled after installation. Do not consume food, beverages or tobacco in the immediate work area. Wash hands before eating, drinking or smoking.

Other Precautions: Avoid heating products beyond temperatures required for normal installation. See installation instructions for proper installation procedures. If product chars or burns, immediately stop heating. Avoid inhaling any fumes which may be given off under such circumstances. Allow any vapors to disperse and ventilate before continuing work in the area.

Ventilation: In accordance with good industrial hygiene practice, ensure adequate ventilation during installation.

Respiratory Protection: If installation occurs in a confined, unventilated area, NIOSH/MSHA-approved respirators are recommended.

Protective Clothing: OSHA, ANSI, or NIOSH guidelines should be followed. If there is a danger of molten material contacting the skin or eyes, use eye/face protection and heat resistant gloves. If it is necessary to handle grossly overheated or fire-damaged products, wear natural rubber gloves to prevent possible contact with potentially corrosive inorganic acid residues.

Transportation: These products are non-hazardous under Department of Transportation Regulations 49, CFR Section 171.8, IATA, IMO, and AFR 71-4. Because there are no applicable shipping regulations for these products, labels are not required on the outside shipping container for these products and all products may be shipped through the U.S. Postal Services.

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Disposal: Dispose in accordance with all local, state and federal regulations.

Installation: Follow appropriate Covalence Specialty Materials installation instructions and application guides to ensure that installation is performed properly. Ensure that any local requirements/legislation concerning the use of open-flame gas torches and working in confined spaces are observed. Do not touch hot surfaces on installation equipment.

EMERGENCY AND FIRST AID PROCEDURES

Eyes: If eye irritation occurs, hold eyelids apart and flush affected area(s) with clean water. Seek medical attention.

Skin: First aid is not normally required. After handling product, it is good work practice to wash your hands. If molten material contacts skin, cool area immediately in water. <u>DO NOT</u> attempt to remove material from the skin. Treat as a burn, and seek medical attention.

Ingestion: Not a normal route of exposure. However, if swallowed and symptoms develop, seek medical attention.

Inhalation: If respiratory symptoms or other symptoms of exposure develop, move victim to fresh air. If symptoms persist, seek medical attention. If breathing difficulties develop, oxygen should be administered by qualified personnel. Seek immediate medical attention. If victim is not breathing, immediately begin artificial respiration. Keep victim warm and quiet; seek immediate medical attention.

Steps to be Taken in Case of Release or Spill: Sweep up and collect in suitable container for disposal or reuse.

Unusual Fire and Explosion Hazards: Toxic fumes may be given off in a fire. See also sections on Thermal Degradation and Combustion Byproducts and Other Precautions.

Special Fire Fighting Procedures: Firefighters should wear self-contained breathing apparatus with a full facepiece operated in the positive demand mode when fighting fires.

Extinguishing Media: carbon dioxide \underline{X} water \underline{X} dry chemical \underline{X} foam \underline{X} other ____





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