



Material Safety Data Sheet

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SECTION 1: PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME: FP-301VW HEAT SHRINK TUBING
MANUFACTURER: 3M
DIVISION: Electrical Markets Division

ADDRESS: 3M Center
 St. Paul, MN 55144-1000

EMERGENCY PHONE: 1-800-364-3577 or (651) 737-6501 (24 hours)

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Product Use:

Intended Use: Electrical
 Specific Use: Electrical insulation of wires and cables.

SECTION 2: INGREDIENTS

<u>Ingredient</u>	<u>C.A.S. No.</u>	<u>% by Wt</u>
EVA COPOLYMER	24937-78-8	0 - 40
FLAME RETARDANT POLYMER	Trade Secret	10 - 35
ADDITIVE	Trade Secret	10 - 25
POLYMER WITH ETHENE	Trade Secret	5 - 15
ACID POLYMER	Trade Secret	5 - 15
PIGMENT	Trade Secret	5 - 15
INSULATOR	Trade Secret	1 - 10
VULCANIZATION CATALYST	Trade Secret	1 - 10
VULCANIZING AGENT	Trade Secret	1 - 10
BLEACHING AGENT	Trade Secret	1 - 10
RED PIGMENT	Trade Secret	0 - 5
COPOLYMER	25087-34-7	0 - 5
METAL DEACTIVATOR	Trade Secret	0 - 5
ANTIOXIDANT	Trade Secret	0 - 5
UV RESISTER	Trade Secret	0 - 5
LIMESTONE	Trade Secret	0 - 5
PLASTIC	Trade Secret	0 - 5
COLORING AGENT	Trade Secret	0 - 5

This product complies with Directive 2002/95/EC of the European Parliament on the Restriction of Hazardous Substances (RoHS)

SECTION 3: HAZARDS IDENTIFICATION

3.1 EMERGENCY OVERVIEW

Specific Physical Form: different lengths and diameters and colors of tubing

Odor, Color, Grade: Tubing, various sizes, colors

General Physical Form: Solid

Immediate health, physical, and environmental hazards:

3.2 POTENTIAL HEALTH EFFECTS

Eye Contact:

Vapors from heated material may cause eye irritation. Signs/symptoms may include redness, swelling, pain, tearing, and blurred or hazy vision.

Skin Contact:

No health effects are expected.

Inhalation:

Vapors from heated material may cause irritation of the respiratory system. Signs/symptoms may include cough, sneezing, nasal discharge, headache, hoarseness, and nose and throat pain.

Ingestion:

No health effects are expected.

SECTION 4: FIRST AID MEASURES

4.1 FIRST AID PROCEDURES

The following first aid recommendations are based on an assumption that appropriate personal and industrial hygiene practices are followed.

Eye Contact: Flush eyes with large amounts of water. If signs/symptoms persist, get medical attention.

Skin Contact: No need for first aid is anticipated.

Inhalation: If signs/symptoms develop, remove person to fresh air. If signs/symptoms persist, get medical attention.

If Swallowed: No need for first aid is anticipated.

SECTION 5: FIRE FIGHTING MEASURES

5.1 FLAMMABLE PROPERTIES

Autoignition temperature	No Data Available
Flash Point	No Data Available
Flammable Limits - LEL	No Data Available
Flammable Limits - UEL	No Data Available
OSHA Flammability Classification:	Not Applicable

5.2 EXTINGUISHING MEDIA

Use fire extinguishers with class B extinguishing agents (e.g., dry chemical, carbon dioxide).

5.3 PROTECTION OF FIRE FIGHTERS

Special Fire Fighting Procedures: See Hazardous Decomposition section for products of combustion. Wear full protective equipment (Bunker Gear) and a self-contained breathing apparatus (SCBA).

Unusual Fire and Explosion Hazards: Not applicable. No unusual fire or explosion hazards are anticipated.

Note: See STABILITY AND REACTIVITY (SECTION 10) for hazardous combustion and thermal decomposition information.

SECTION 6: ACCIDENTAL RELEASE MEASURES

Accidental Release Measures: Not applicable.

In the event of a release of this material, the user should determine if the release qualifies as reportable according to local, state, and federal regulations.

SECTION 7: HANDLING AND STORAGE

7.1 HANDLING

Avoid eye contact with vapors, mists, or spray. Avoid skin contact with hot material. Do not breathe vapors. Avoid breathing of fumes. Use general dilution ventilation and/or local exhaust ventilation to control airborne exposures to below Occupational Exposure Limits. If ventilation is not adequate, use respiratory protection equipment. Wash hands after handling and before eating. Avoid contact with oxidizing agents. For industrial or professional use only.

7.2 STORAGE

Store away from heat. Store in a cool, dry place.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 ENGINEERING CONTROLS

If exhaust ventilation is not available, use appropriate respiratory protection. Provide appropriate local exhaust when product is heated. WHEN USING THIS PRODUCT IN A CONFINED SPACE OR WHERE VENTILATION MAY BE INADEQUATE THEN RESPIRATORY PROTECTION MAY BE WORN. INADEQUATE VENTILATION OR CONFINED SPACES WOULD CAUSE VAPORS FROM HEATING OF THIS PRODUCT TO BE PRESENT IN THE USER'S BREATHING ZONE AND MAY CAUSE RESPIRATORY IRRITATION. EXCESSIVE HEATING OF THIS PRODUCT BEYOND THE RECOMMENDED APPLICATION TEMPERATURE OF 250 DEGREES FAHRENHEIT IS NOT RECOMMENDED AND MAY RESULT IN THERMAL DEGRADATION AND DECOMPOSITION PRODUCTS WHICH MAY RESULT IN ADVERSE HEALTH EFFECTS.

8.2 PERSONAL PROTECTIVE EQUIPMENT (PPE)

8.2.1 Eye/Face Protection

Avoid eye contact with vapors, mists, or spray.

The following eye protection(s) are recommended: Indirect Vented Goggles. AVOID EYE CONTACT WITH VAPORS OR SMOKE RESULTING FROM OVERHEATING OR WHEN USED IN CONFINED AREAS.

8.2.2 Skin Protection

Avoid skin contact with hot material. Select and use gloves and/or protective clothing to prevent skin contact based on the results of an exposure assessment. Consult with your glove and/or protective clothing manufacturer for selection of appropriate compatible materials.

8.2.3 Respiratory Protection

Avoid breathing of fumes. Do not breathe vapors.

Select one of the following NIOSH approved respirators based on airborne concentration of contaminants and in accordance with OSHA regulations: Half facepiece air-purifying respirator with organic vapor/acid gas cartridges and P95 particulate prefilters. Consult the current 3M Respiratory Selection Guide for additional information or call 1-800-243-4630 for 3M technical assistance.

8.2.4 Prevention of Swallowing

Do not eat, drink or smoke when using this product. Wash exposed areas thoroughly with soap and water.

8.3 EXPOSURE GUIDELINES

None Established

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

Specific Physical Form:	different lengths and diameters and colors of tubing
Odor, Color, Grade:	Tubing, various sizes, colors
General Physical Form:	Solid
Autoignition temperature	<i>No Data Available</i>
Flash Point	<i>No Data Available</i>
Flammable Limits - LEL	<i>No Data Available</i>
Flammable Limits - UEL	<i>No Data Available</i>
Boiling point	<i>Not Applicable</i>
Vapor Density	<i>Not Applicable</i>
Vapor Pressure	<i>Not Applicable</i>
Specific Gravity	<i>No Data Available</i>
Melting point	<i>No Data Available</i>
Solubility In Water	<i>Not Applicable</i>
Solubility in Water	Nil
Volatile Organic Compounds	<i>Not Applicable</i>
Percent volatile	<i>Not Applicable</i>
VOC Less H2O & Exempt Solvents	<i>Not Applicable</i>
Viscosity	<i>Not Applicable</i>

SECTION 10: STABILITY AND REACTIVITY

Stability: Stable.

Materials and Conditions to Avoid: None known

Hazardous Polymerization: Hazardous polymerization will not occur.

Hazardous Decomposition or By-Products

<u>Substance</u>	<u>Condition</u>
Aldehydes	During Combustion
Carbon monoxide	During Combustion
Carbon dioxide	During Combustion
Hydrogen Chloride	During Combustion

SECTION 11: TOXICOLOGICAL INFORMATION

Please contact the address listed on the first page of the MSDS for Toxicological Information on this material and/or its components.

SECTION 12: ECOLOGICAL INFORMATION

ECOTOXICOLOGICAL INFORMATION

Not determined.

CHEMICAL FATE INFORMATION

Not determined.

SECTION 13: DISPOSAL CONSIDERATIONS

Waste Disposal Method: Dispose of waste product in a sanitary landfill. As a disposal alternative, incinerate in the presence of a combustible material in an industrial or commercial facility capable of handling halogenated waste.

EPA Hazardous Waste Number (RCRA): Not regulated

Since regulations vary, consult applicable regulations or authorities before disposal.

SECTION 14: TRANSPORT INFORMATION

ID Number(s):

80-6102-1930-7, 80-6102-1935-6, 80-6102-1941-4, 80-6102-1947-1, 80-6102-1960-4, 80-6102-1971-1, 80-6102-1977-8, 80-6102-2031-3, 80-6102-2039-6, 80-6102-2047-9, 80-6102-2572-6, 80-6102-2775-5, 80-6102-2800-1, 80-6102-2814-2, 80-6102-2831-6, 80-6102-2842-3, 80-6102-2843-1, 80-6102-2851-4, 80-6102-2894-4, 80-6102-3831-5, 80-6102-3882-8, 80-6102-3905-7, 80-6102-3908-1, 80-6102-3927-1, 80-6102-3946-1, 80-6102-3967-7, 80-6102-3970-1, 80-6102-3971-9, 80-6102-3984-2, 80-6102-3985-9, 80-6102-

3998-2, 80-6102-3999-0, 80-6102-4007-1, 80-6102-4043-6, 80-6102-4052-7, 80-6103-3558-2, 80-6103-3559-0, 80-6105-4594-1, 80-6106-4504-8, 80-6106-4505-5, 80-6106-4506-3, 80-6106-4507-1, 80-6106-4508-9, 80-6106-4509-7, 80-6106-4510-5, 80-6106-4511-3, 80-6106-4512-1, 80-6106-4513-9, 80-6106-4514-7, 80-6106-4515-4, 80-6106-4554-3, 80-6106-4555-0, 80-6106-4556-8, 80-6106-4557-6, 80-6106-4558-4, 80-6106-4559-2, 80-6106-4560-0, 80-6106-4561-8, 80-6106-4562-6, 80-6106-4563-4, 80-6106-4564-2, 80-6106-4565-9, 80-6106-4593-1, 80-6106-4594-9, 80-6106-4595-6, 80-6106-4624-4, 80-6106-4626-9, 80-6106-4802-6, 80-6106-4803-4, 80-6106-4804-2, 80-6106-4839-8, 80-6106-4872-9, 80-6106-4873-7, 80-6106-4882-8, 80-6106-4958-6, 80-6106-4981-8, 80-6106-7590-4, 80-6106-7622-5, 80-6106-7623-3, 80-6106-7624-1, 80-6106-7736-3, 80-6106-7785-0, 80-6106-7991-4, 80-6106-7998-9, 80-6106-8926-9, 80-6106-9003-6, 80-6106-9010-1, 80-6106-9017-6, 80-6106-9028-3, 80-6106-9052-3, 80-6106-9059-8, 80-6106-9061-4, 80-6106-9117-4, 80-6106-9227-1, 80-6106-9329-5, 80-6107-5122-6, 80-6107-5123-4, 80-6107-5151-5, 80-6107-5322-2, 80-6107-5372-7, 80-6107-5374-3, 80-6107-5402-2, 80-6107-5424-6, 80-6107-5431-1, 80-6107-6637-2, 80-6107-6723-0, 80-6107-6858-4, 80-6107-6962-4, 80-6107-7048-1, 80-6107-8361-7, 80-6107-8437-5, 80-6107-8438-3, 80-6107-8439-1, 80-6107-8440-9, 80-6107-8441-7, 80-6107-8442-5, 80-6107-8443-3, 80-6107-8444-1, 80-6107-8445-8, 80-6107-8446-6, 80-6107-8447-4, 80-6107-8448-2, 80-6107-8449-0, 80-6107-8450-8, 80-6107-8516-6, 80-6107-8517-4, 80-6107-8518-2, 80-6107-8725-3, 80-6107-8726-1, 80-6107-8727-9, 80-6107-8728-7, 80-6107-8729-5, 80-6107-8730-3, 80-6107-8731-1, 80-6107-8732-9, 80-6107-8733-7, 80-6107-8734-5, 80-6107-8735-2, 80-6107-8736-0, 80-6107-8737-8, 80-6107-8738-6, 80-6108-2108-6, 80-6108-2109-4, 80-6108-2110-2, 80-6108-2111-0, 80-6108-2112-8, 80-6108-2113-6, 80-6108-2114-4, 80-6108-2116-9, 80-6108-2117-7, 80-6108-2118-5, 80-6108-2119-3, 80-6108-2120-1, 80-6108-2121-9, 80-6108-2122-7, 80-6108-2123-5, 80-6108-2124-3, 80-6108-2126-8, 80-6108-2127-6, 80-6108-2129-2, 80-6108-2130-0, 80-6108-2132-6, 80-6108-2135-9, 80-6108-2136-7, 80-6108-2137-5, 80-6108-2138-3, 80-6108-2139-1, 80-6108-2158-1, 80-6108-2160-7, 80-6108-2161-5, 80-6108-2164-9, 80-6108-2166-4, 80-6108-2167-2, 80-6108-2173-0, 80-6108-2174-8, 80-6108-2176-3, 80-6108-2179-7, 80-6108-2201-9, 80-6108-2210-0, 80-6108-2211-8, 80-6108-2212-6, 80-6108-2213-4, 80-6108-2214-2, 80-6108-2217-5, 80-6108-2221-7, 80-6108-2240-7, 80-6108-2241-5, 80-6108-2250-6, 80-6108-2251-4, 80-6108-2260-5, 80-6108-2274-6, 80-6108-2283-7, 80-6108-2296-9, 80-6108-2298-5, 80-6108-2301-7, 80-6108-2319-9, 80-6108-2320-7, 80-6108-2322-3, 80-6108-2328-0, 80-6108-2332-2, 80-6108-2342-1, 80-6108-2344-7, 80-6108-2345-4, 80-6108-2346-2, 80-6108-2373-6, 80-6108-2388-4, 80-6108-2391-8, 80-6108-2393-4, 80-6108-2398-3, 80-6108-2407-2, 80-6108-2417-1, 80-6108-2418-9, 80-6108-2448-6, 80-6108-2469-2, 80-6108-2470-0, 80-6108-5468-1, 80-6108-5470-7, 80-6108-5497-0, 80-6108-5629-8, 80-6108-5636-3, 80-6108-5654-6, 80-6108-5673-6, 80-6108-5675-1, 80-6108-5676-9, 80-6108-5677-7, 80-6108-5680-1, 80-6108-5681-9, 80-6108-5684-3, 80-6108-5686-8, 80-6108-5687-6, 80-6108-5694-2, 80-6108-5695-9, 80-6108-5696-7, 80-6108-5697-5, 80-6108-5700-7, 80-6108-5702-3, 80-6108-5703-1, 80-6108-5706-4, 80-6108-5708-0, 80-6108-5712-2, 80-6108-5714-8, 80-6108-5717-1, 80-6108-5719-7, 80-6108-5720-5, 80-6108-5721-3, 80-6108-5724-7, 80-6108-5732-0, 80-6108-5733-8, 80-6108-5734-6, 80-6108-5741-1, 80-6108-5742-9, 80-6108-5743-7, 80-6108-5744-5, 80-6108-5750-2, 80-6108-5751-0, 80-6108-5754-4, 80-6108-5755-1, 80-6108-5756-9, 80-6108-5758-5, 80-6108-5760-1, 80-6108-5762-7, 80-6108-5763-5, 80-6108-5765-0, 80-6108-5767-6, 80-6108-5768-4, 80-6108-5810-4, 80-6108-5821-1, 80-6108-5855-9, 80-6108-5858-3, 80-6109-0510-3, 80-6109-0525-1, 80-6109-0554-1, 80-6109-0615-0, 80-6109-0619-2, 80-6109-0707-5, 80-6109-0747-1, 80-6109-0754-7, 80-6109-0814-9, 80-6109-0821-4, 80-6109-5677-5, 80-6109-5794-8, 80-6109-5933-2, 80-6110-0155-5, 80-6110-0209-0, 80-6110-0307-2, 80-6110-0407-0, 80-6110-0550-7, 80-6110-7071-7, 80-6110-7158-2, 80-6110-7244-0, 80-6110-7359-6, 80-6110-7455-2, 80-6110-7800-9, 80-6110-7801-7, 80-6110-7802-5, 80-6110-7803-3, 80-6110-7804-1, 80-6110-7805-8, 80-6110-7806-6, 80-6110-7831-4, 80-6110-7841-3, 80-6110-7887-6, 80-6112-6337-9, 80-6112-6364-3, 80-6112-6644-8, 80-6112-6955-8, 80-6114-2004-5, 80-6114-2544-0, 80-6114-2600-0, 80-6114-2660-4, 80-6114-2669-5, 80-6114-2710-7, 80-6114-2711-5, 80-6114-2735-4, 80-6114-2741-2, 80-6114-2914-5, 80-6114-2959-0, 80-6114-2963-2, 80-6114-2997-0, 80-6114-2999-6, 80-6114-3000-2, 80-6114-3140-6, 80-6114-3443-4, 80-6114-3716-3, 80-6114-3819-5, 80-6114-3851-8, 80-6114-3852-6, 80-6114-3877-3, 80-6114-3911-0, 80-6114-4161-1, 80-6114-4204-9, 80-6114-4289-0

Please contact the emergency numbers listed on the first page of the MSDS for Transportation Information for this material.

SECTION 15: REGULATORY INFORMATION

US FEDERAL REGULATIONS

Contact 3M for more information.

311/312 Hazard Categories:

Fire Hazard - No Pressure Hazard - No Reactivity Hazard - No Immediate Hazard - No Delayed Hazard - No

Section 313 Toxic Chemicals subject to the reporting requirements of that section and 40 CFR part 372 (EPCRA):

<u>Ingredient</u>	<u>C.A.S. No</u>	<u>% by Wt</u>
PIGMENT (ANTIMONY COMPOUNDS)	Trade Secret	1 - 15
VULCANIZATION CATALYST (ZINC COMPOUNDS)	Trade Secret	1 - 10

STATE REGULATIONS

Contact 3M for more information.

CHEMICAL INVENTORIES

This product is an article as defined by TSCA regulations, and is exempt from TSCA Inventory listing requirements.

Contact 3M for more information.

Additional Information: See Section 4 for Hazardous Decomposition Products.

INTERNATIONAL REGULATIONS

Contact 3M for more information.

WHMIS: Hazardous

This MSDS has been prepared to meet the U.S. OSHA Hazard Communication Standard, 29 CFR 1910.1200.

SECTION 16: OTHER INFORMATION

NFPA Hazard Classification

Health: 1 **Flammability:** 1 **Reactivity:** 0 **Special Hazards:** None

National Fire Protection Association (NFPA) hazard ratings are designed for use by emergency response personnel to address the hazards that are presented by short-term, acute exposure to a material under conditions of fire, spill, or similar emergencies. Hazard ratings are primarily based on the inherent physical and toxic properties of the material but also include the toxic properties of combustion or decomposition products that are known to be generated in significant quantities.

No revision information is available.

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