

MATERIAL SAFETY DATA SHEETS

DISCLAIMER

The products produced by Alan Wire Company exhibit no specific hazard due to their construction beyond the hazards associated with the components used in their manufacture. This Material Safety Data Sheet (MSDS) is a compilation of the data contained in the individual component MSDS sheets and as such is reliant on the accuracy of those individual sheets. Under normal use there is no significant inherent hazardous exposure opportunity from the construction materials.

SECTION 1 PRODUCT IDENTIFICATION

This MSDS reflects the components used in the manufacture of:

PRODUCT

- UF
- TFN/TFFN
- THHN
- PE
- MTW

NORMAL CONSTRUCTION COMPONENTS

- PVC, Copper
- PVC, Nylon, Copper
- PVC, Nylon, Copper
- Polyethylene, Copper
- PVC, Copper

SECTION 2 INGREDIENTS

The Components included are:

- Polyvinyl Chloride Compounds
- Copper
- Nylon
- Polyethylene Compounds

SECTION 3 PHYSICAL DATA

POLYVINYL CHLORIDE COMPOUNDS NYLON

Specific Gravity: 1.1 to 1.6
Melting Point: 350° to 400° F

Specific Gravity: 1.05 to 1.25
Decomposition Temperature: 300° C

COPPER

Specific Gravity: 8.96
Melting Point: 1083° Centigrade

POLYETHYLENE

Vinyltrimethoxysilane - Specific Gravity: 0.92 – 0.96
Dibutyltindilaurate/Antimony Trioxide mix -
Specific Gravity: 1.72

SECTION 4 FIRE AND EXPLOSION DATA

POLYVINYL CHLORIDE COMPOUNDS

Extinguishing media: Water spray, CO2 or dry chemical fire extinguisher

NYLON

Flash point - 400° Centigrade
Fire extinguishing media: Water fog, foam, CO2 or dry chemical extinguisher
Fire personnel should wear fire protective gear and self-contained breathing apparatus.

POLYETHYLENE

Flash point - 650° Centigrade
Extinguishing media: Water spray, CO2 or dry chemical fire extinguisher
Dense smoke emitted when burned without sufficient oxygen.
Possible dust explosion if fires accumulate.
Fire personnel should wear standard fire fighting attire.



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MATERIAL SAFETY DATA SHEETS

SECTION 5 HEALTH EFFECTS

POLYVINYL CHLORIDE COMPOUNDS

Polyvinyl Chloride Resin – 30 to 60%

Inert fillers – 0 to 30% (CaCO₃, Clay)

Heat Stabilizers – 0 to 5% (Organometallic compounds of Calcium and/or Zinc)

Plasticizer – 20 to 40% (High Molecular Weight Esters)

Flame Retardant – 0 to 5% (Antimony Trioxide)

PVC compounds evolve hydrogen chloride, carbon monoxide and other hazardous byproducts when thermally degraded, exposure should be avoided. Exposure during handling should be controlled by wearing gloves. Washing the exposed surfaces can control the effects of contact with the material. Effort should be made to control nuisance dust and personal exposure to unavoidable nuisance dust limited by the use of respirators

NYLON

Routes of entry for solids and liquids include eye and skin contact, ingestion and inhalation. Routes of entry for gases include inhalation and eye contact. Skin contact may be a route of entry for liquefied gases.

Acute Overexposure Effects:

- Caprolactam vapor may be released during processing. Dusts generated from mechanical processing may cause irritation to the eyes, skin or respiratory tract. The OSHA TWA and the ACGIH TLV for caprolactam vapor are 5 ppm.

First Aid Procedures:

- Skin: Wash affected area with soap and water. Remove and launder contaminated clothing before reuse.
- Eyes: Rinse eyes with running water for 15 minutes.
- Inhalation: Move to fresh air.

Seek Medical attention if symptoms appear more than casual.

COPPER

Acute Overexposure Effects:

- Inhalation of fumes may cause irritation of the respiratory tract and metal fume fever with symptoms of fever, chills, nausea, chest tightness or metallic taste. Ingestion of metallic copper could be moderately irritating to the gastrointestinal tract.

Chronic Overexposure:

- Long-term overexposure to dust or fume may cause skin irritation or discoloration of the skin and hair.

Affected Medical Conditions:

- Persons with Wilson's Disease could be affected by copper exposure.

First Aid Procedures:

- Inhalation: Remove from exposure; place under the care of a physician.
- Ingestion: Induce vomiting in a conscious individual and call a physician.
- Skin or Eyes: Flush with plenty of water. If symptoms develop, consult a physician.

POLYETHYLENE

- Eyes: Flush for 15 minutes with water, get medical attention.
- If swallowed: Induce vomiting.

MATERIAL SAFETY DATA SHEETS

SECTION 6 REACTIVE DATA

POLYVINYL CHLORIDE COMPOUNDS

Thermal degradation of this material produces Hydrogen Chloride, Carbon Monoxide and other common hazardous by products of combustion.

NYLON

Incompatible with strong oxidizing agents, acids and bases. Avoid prolonged exposure to extreme heat, dust accumulation and moisture during storage. Overheating may cause decomposition and the release of Hydrogen Cyanide, CO and Ammonia.

COPPER

Contact with >52% hydrogen peroxide may cause a violent reaction, contact with acetylene may form unstable acetylides, copper foil burns spontaneously in gaseous chlorines and finely divided copper with finely divided halogenates may explode with heat, percussion or light friction. Hazardous oxide fines may evolve at temperatures above the melting point.

POLYETHYLENE

Avoid contact with strong oxidizing agents. Decomposition generates Carbon dioxide, carbon monoxide, hydrogen bromide, methanol, oxides of antimony and trace volatile organics.

SECTION 7 PERSONAL PROTECTION

POLYVINYL CHLORIDE COMPOUNDS RESPIRATORY PROTECTION:

If dust is generated by handling.

NYLON

Gloves and apron to prevent contact during processing. When processing vapors are not adequately controlled, wear a NIOSH/MSHA approved organic vapor cartridge respirator. For excessive dust, wear a NIOSH/MSHA approved dust respirator. Use local exhaust to control the accumulation of dust or vapor during processing.

COPPER

Local exhaust ventilation is recommended for dust and/or fume generating operations. Avoid inhalation or ingestion by practicing good housekeeping and personal hygiene procedures. Where airborne exposures may exceed OSHA/ACGIH permissible air concentrations, the minimum respiratory protection recommended is negative pressure air purifying respirator with cartridges that are NIOSH/MSHA approved against dust, fumes and mists having a TWA not less than 0.05 mg/cu m. Protective clothing is recommended for jobs with heavy dust exposure to prevent skin irritation. Contaminated clothing should be removed before leaving the plant premises.

POLYETHYLENE

An approved respirator may be needed in areas with a high accumulation of fines.

MATERIAL SAFETY DATA SHEETS

SECTION 8 SPILL / LEAK / ENVIRONMENTAL

POLYVINYL CHLORIDE COMPOUNDS

Dispose of the THHN insulating material utilizing the correct procedures as required by EPA and DOT due to its Antimony Trioxide content.

NYLON

This material is not regulated by RCRA or CERCLA. Incinerate or bury in a licensed facility. Do not discharge into waterways or sewer systems without proper authority.

COPPER

The LC50 for copper is the fathead minnow is 12 mg/L and is 3.5 mg/kg for a mouse. Acid solutions promote mobility and solubility of copper. Any method that keeps dust to a minimum is acceptable, do not use compressed air for cleaning. Waste Disposal: If hazardous under 40 CFR 261, subparts B and C, material must be treated or disposed in a facility meeting the requirements of 40 CFR 264 or 265. If nonhazardous, material should be disposed if in a facility meeting requirements of 0 CFR 257. If discarded in an unaltered form, material should be tested to determine if it must be classified as a hazardous waste for disposal purposes.

POLYETHYLENE

Dispose of in accordance with local, state or federal regulations.

SECTION 9 STORAGE AND HANDLING

General storage procedures acceptable. Keep away from heat or flame.

SECTION 10 REGULATORY INFORMATION

POLYVINYL CHLORIDE COMPOUNDS

Only the THHN insulating material contains EPA regulated materials (Antimony Trioxide).

NYLON

This material is not regulated by RCRA or CERCLA. CAS: 25038-54-4

COPPER

This material is not regulated by DOT but is by SARA title III, sections 311, 312 & 313. RQ=5000lbs. CAS: 7440-50-8.

POLYETHYLENE

Vinyltrimethoxysilane – CAS: 2768-02-7
Dibutyltindilaurate – 77-58-7
Antimony Trioxide – 1309-64-4

SECTION 11 TRANSPORTATION INFORMATION

All products are considered "Articles" and as such require no special transportation requirements.



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