SECTION 1  PRODUCT IDENTIFICATION

Product Name : PVC- 997596
Description : Thermoplastic for Extrusion or Injection Molding.

Contact Information / Manufacturer Identification

Polyflex Division of FlexTechnologies
3430 State Route 93
Baltic, Ohio 43804
Environmental Affairs / Customer Service : 330-897-6311  Fax : 330-897-7000

SECTION 2  HAZARD IDENTIFICATION

PRECAUTIONARY INFORMATION
Proper procedures must be followed at all times when processing PVC compounds. Vapors and fumes released at elevated temperatures may result in exposure.

2.1 Health Hazards
OSHA Regulation Status
All Ingredients are enclosed by the fused polymer and therefore are not considered by the OSHA Hazard Communication Standard (29 CFR 1910.1200). Routes of entry include eye and skin contact, ingestion and inhalation. Refer to Section 4 for First Aid Measures.

2.2 Physical Hazard
PVC compounds will not normally continue to burn after ignition without and external fire source. PVC evolves hydrogen chloride, carbon monoxide, and other gases when burned.

2.3 Label Elements
Hazard Pictograms

Signal Word : Warning

2.4 Classification System
HMIS rating (US only): Health 1, Fire Hazard 1, Reactivity 0  scale 0 - 4
NFPA rating : Health 0, Flammability 0, Reactivity 0  scale 0 - 4
SECTION 3  COMPOSITION / INFORMATION ON INGREDIENT

Component  |  CAS#  |  Wt.%  
---|---|---
Polyvinyl Chloride Resin  |  68648-82-8  |  20 – 80%

Compounded PVC is an inert material in its normal usage. All the components listed below are encapsulated in the fused PVC matrix. Typical composition for this compound-application are listed below, not all component are used in all formulas.

Proprietary Additives

Component  |  CAS#  |  Wt.%  |  Ingredients
---|---|---|---
Plasticizer  |  Mixture  |  0 – 60  |  High Molecular weight esters.
Inert Filler  |  Mixture  |  0 – 45  |  CaCO₃,  talc ,carbon black, clay.
Stabilizers  |  Mixture  |  1 - 3  |  Organometallic compounds of barium and/or calcium-zinc.
Colorants  |  Mixture  |  0 – 5  |  Organic and inorganic colorants.

SECTION 4  FIRST AID MEASURE

Eyes  |  Flush with water. If irritation persist seek medical attention.

Skin  |  No adverse effects anticipated under normal conditions. Flush with water to remove material from skin. Obtain medical attention if irritation is present and persist.

Inhalation  |  No adverse effect anticipated under normal conditions if adequately ventilated. If exposure occur, remove the exposure individual to fresh air. Obtain immediately medical attention if irritation persist.

Ingestion  |  Do not induce vomit. Seek medical attention.

SECTION 5  FIRE FIGHTING MEASURES

Flash Ignition Temperature  |  >600°F

Autoignition Temperature  |  Not Applicable

Fire Fighting Procedures / Fire Extinguishing Media

Water, carbon dioxide, foam and dry chemical.

Unusual Fire and Explosion Hazards

PVC evolves hydrogen chloride, carbon monoxide, and other gases when burned. Exposure to combustion products may be fatal and should be avoided . PVC Compounds will normally continue to burn after ignition without and external source. Do not allow fire fighting runoff water to enter natural streams. The water may contain HCL and other combustion products.

Fire-Fighting Equipment
SECTION 6  ACCIDENTAL RELEASE MEASURE

Protect People:
Remove unnecessary personnel from the release area. Wear appropriate personal protective equipment during clean up.

Protect Environment
Contain material to prevent contamination of the soil, surface water or ground water.

Clean Up
Clean up uncontaminated material and recycle into process. Sweep or vacuum.

SECTION 7  HANDLING AND STORAGE

Advice on Safe Handling
Use proper personal protective equipment during handling. Minimize dust generation and accumulation. Use good housekeeping practices.

Protective Measure
Use methods to minimize generation of dust.
Wash thoroughly after handling. PVC resin processing may result in the release of low levels of vinyl chloride monomer. Use only in well-ventilated areas.

Storage
Store in a cool, well ventilated dry place away from direct sunlight, heat, and incompatible material. Store away from food and beverages. Keep container closed to prevent contamination.

SECTION 8  EXPOSURE CONTROLS /PERSONAL PROTECTION

All personal protective equipment should be selected in accordance with the hazard assessment required by 29CFR 1919.132.

Respiratory Protection
For most conditions, no respiratory protection should be needed. However, if dust is produced during handling a NIOSH approved air purifying filter respirator that meets the requirements of 29 CFR 1919.134 should be used. Full-face self contained breathing apparatus may be needed when dealing with vapors from combustion of product. Respirators must be selected accordingly with airborne levels.

Eyes Protection
Use safety glasses.

Skin Protection
Protective clothing and gloves for contact with molten plastic.

Engineering Control
Provide general and local exhaust ventilation to control air borne. Local exhaust ventilation should comply with OSHA regulations and the American Conference of Industrial Hygienist, Industrial Ventilation – A Manual of Recommended Practice.
SECTION 8  EXPOSURE CONTROLS /PERSONAL PROTECTION
( continued )
Exposure Guidelines
No exposure limits have been established for PVC. It is recommended that exposure be kept below the limits for
Particulate not otherwise classified according to the Centre for Disease Control and Prevention:
OSHA-PEL: 15 mg/ m³ 8 hr-TWA (Total Dust)
               5 mg/m³ 8 hr-TWA (Respirable)
PEL : Permissible Exposure Limit
TWA : Time-Weighted Average Concentration

Under normal processing conditions, no occupational exposure to vinyl chloride monomer exceeding the established limits for this material are anticipated.
The OSHA-PEL for vinyl chloride is 1 ppm over an 8hr-TWA. The OSHA-STEL for vinyl chloride is 5 ppm for any 15-minute period.

SECTION 9  PHYSICAL AND CHEMICALS PROPERTIES

<table>
<thead>
<tr>
<th>PROPERTY</th>
<th>VALUE</th>
</tr>
</thead>
<tbody>
<tr>
<td>APPEARANCE</td>
<td>Pellets of different sizes, hardness, and colors</td>
</tr>
<tr>
<td>ODOR</td>
<td>No distinct odor</td>
</tr>
<tr>
<td>BOILING POINT</td>
<td>Solid</td>
</tr>
<tr>
<td>MELTING POINT</td>
<td>Varies</td>
</tr>
<tr>
<td>SOLUBILITY</td>
<td>None</td>
</tr>
<tr>
<td>SPECIFIC GRAVITY (WATER=1.0)</td>
<td>1.43</td>
</tr>
<tr>
<td>VAPOR DENSITY (AIR=1.0)</td>
<td>Not Applicable</td>
</tr>
<tr>
<td>VAPOR PRESSURE</td>
<td>Not Applicable</td>
</tr>
<tr>
<td>PH</td>
<td>Not Applicable</td>
</tr>
<tr>
<td>VOC</td>
<td>Less than 5 parts per million</td>
</tr>
</tbody>
</table>

SECTION 10  STABILITY AND REACTIVITY

STABILITY
Stable under normal conditions.

POLIMERIZATION
Hazardous polymerization does not occur.

CONDITIONS TO AVOID
Instantaneous temperatures above 240°C (464°F). Prolonged heating combined with shear during processing can generate hazardous decomposition products.
SECTION 10  STABILITY AND REACTIVITY
( continued )

Overheating may cause thermal degradation of PVC compound. Fumes and vapor (including CO, CO₂ and HCL) may be produced as result of thermal degradation. These emissions are possible to occur during normal operating condition and may accumulate if ventilation is insufficient.

INCOMPATIBLE MATERIALS
Do not allow this product to contact acetal or acetal copolymer within the processing machine. At processing conditions the two materials are mutually destructive.

SECTION 11  TOXICOLOGICAL INFORMATION

This information on PVC compounds is extracted from HSDB and NTP databases.

ANIMAL TOXICITY

Oral: Rat, TDLo 210 gm/kg
Inhalation: Mouse, LC50 140 mg/m³

TDLo = Lowest toxic dose in a given species by a given route of exposure.

LC50 = Concentration that is lethal to 50% of a given species by a given route of exposure.

Rodents exposed to PVC by dietary or inhalation routes for 6-24 months have shown no significant toxicological effects.

While PVC is generally considered an inert polymer, exposure to PVC dust has been reported to cause lung changes in animals and human, including decreased respiratory capacity and inflammation. However, exposure approaching the nuisance dust exposure limits are not anticipated to pose a significant health risk.

SECTION 12  ECOLOGICAL INFORMATION

ENVIRONMENTAL IMPACT

Aquatic: No data available
Biodegradation: Not subject to biodegradation

Due caution should be exercised to prevent accidental release of this material to the environment.

SECTION 13  DISPOSAL CONSIDERATION

WASTE MANAGEMENT INFORMATION

Do not dump into any sewer, on the ground, or into body of water. Any disposal practice must be in compliance with local, state and federal laws and regulations.
SECTION 14 DISPOSAL CONSIDERATION

This product is not regulated under the following regulations:
- United States Department of Transportation, DOT
- United States Coast Guard Regulations
- International Maritime Organization (IMO) regulations
- International Civil Aviation Organization (ICAO) regulations
- International Air Reports Association (IATA) regulations
- European Agreement Concerning the International Carriage of Dangerous Goods by Road (ADR) regulations
- European Agreement Concerning the International Carriage of Dangerous Goods by Rail (RID) regulations
- Australian Dangerous Good (ADG) regulations

SECTION 15 REGULATORY INFORMATION

OSHA SARA Title III
All Section are Not Applicable for the product.

CERCLA
Section 102(a) Hazardous Substances (40 CFR 302.4)
- Not Applicable

PROPOSITION 65
This product does not contain substances known to the state of California to cause cancer and/or reproduction toxicity.

CANADIAN REGULATION
This product has been classified according to the hazard criteria of the Canadian Controlled Products Regulations, Section 33 and this SDS contains all information required by this regulation.

WHMIS Classification Not a Controlled Product

SECTION 16 OTHER INFORMATION

The information and data herein are believed to be accurate and have been compiled from sources believed to be reliable. Polyflex Division of FlexTechnologies makes no warranty of any kind, expressed or implied, concerning the accuracy of completeness of the information herein. Polyflex will not be liable for claims relating to any party's use of reliance on information and data contained herein. This information relates to the material designated and may not be valid for such material used in combination with any other materials and/or process.

Acronyms used on this Document.
HMIS: Hazardous Material Identification System
NFPA: National Fire Protection Association