SAFETY DATA SHEET

SECTION 1 PRODUCT AND COMPANY IDENTIFICATION

PRODUCT

Product Name: Flexible Polyvinyl Chloride (PVC) Expansion Joints
Abbreviation: (C2H3CI)n
CAS No.: Not applicable
Product Description: PVC Expansion Joints
Intended Use: Expansion Joints used in construction applications. (This is a manufactured article that does not require a safety data sheet and is provided herein as a courtesy to customers. This is based on the raw material compound used in manufacturing.)

COMPANY IDENTIFICATION

Manufacturer/Distributor: **WIRE-BOND**
400 ROuntree Road
Charlotte, NC 28217

Emergency	(800) 334-3776
Transportation Emergency Phone	
Product Technical Information	(800)-849-6722
Supplier General Contact	(800)-849-6722

SECTION 2 HAZARDS IDENTIFICATION

Hazardous Components	*OSHA PEL*	*ACGIH TLV*	*Other Limits Recommended*
Nuisance Dust	15 mg/m3	10mg/m3 (total dust)	None
Hydrogen Chloride (when overheated)	5 ppm	2 ppm (3mg/m3) Ceiling	

Precautionary Information

Caution: See Section

NFPA Hazard ID:	Health:	1	Flammability:	1	Reactivity: 0
HMIS Hazard ID:	Health:	0	Flammability:	1	Reactivity: 0

SECTION 3 COMPOSITION / INFORMATION ON INGREDIENTS

Component	**CAS No.**	**Wt.%**
Polyvinyl Chloride Resin	9002-86-2	45 - 80%

Compounded PVC is an inert material in its normal usage. All the components listed below are encapsulated in the PVC matrix. **Typical** compositions are listed below:

This product is a solid or granulated product which does not contain chemicals that are considered hazardous under 29 CFR 1910.1200.

Proprietary Additives

Component	CAS No.	Wt.%	Ingredients*
Plasticizer	Mixture	0–60%	High molecular weight esters
Inert Fillers	Mixture	0–40%	Calcium carbonate, clay
Heat Stabilizer	Mixture	3 – 10%	Organometallic compounds of barium and/or calcium-zinc
Colorant	Mixture	0–5%	Organic and inorganic colorants

*May contain some, all, or none of the ingredients listed.

Caution: If proper procedures for processing/Recycling PVC materials and products are not followed, processing vapors can be liberated at elevated temperatures. The presence of these vapors may result in exposure. Additionally, the composition of these fumes or vapors may vary widely according to the individual processing procedures and materials used. Processors must determine for themselves the appropriate equipment and procedures for their operation.
NOTE: The product may contain varying levels of additives such as slip and antiblocking agents, antioxidants and stabilizers. The substances in the above table are components of one or more, but not all product grades.

SECTION 4 FIRST AID MEASURES

POTENTIAL HEALTH EFFECTS
Primary Routes of Exposure: Inhalation of processing emissions during periods of elevated temperature.

Eye: Vapors or fumes emitted during processes involving elevated temperatures may cause eye irritation. Dust resulting from the handling of powder may be irritating to the eyes. In the event of eye irritation, flush eyes with water for at least 15 minutes. Do not rub eyes. Obtain medical attention if irritation persists.

Skin Absorption: This material is initially a dry solid pellet; no absorption is likely to occur in its initial form. Vapors or fumes emitted during processes involving elevated temperatures may absorb through the skin at low levels.

Skin Contact: Vapors or fumes emitted during processes involving elevated temperatures may cause skin irritation. Dust resulting from the handling of powder may be irritating to the skin. No adverse effects anticipated under normal conditions. Flush with water to remove material from skin. Obtain medical attention if irritation persists.

Ingestion: Slightly toxic by ingestion. Dust may become airborne during handling, resulting in the potential for incidental ingestion. Vapors or fumes emitted during processes involving elevated temperature may be ingested at low levels. Adequate ventilation should be provided. No effect expected. If large amounts are ingested, seek medical attention. Only induce vomiting at the instructions of a physician.

Inhalation: Dust may become airborne during grinding, resulting in potential inhalation exposure. Vapors or Fumes emitted during processes involving elevated temperatures may be inhaled if not adequately ventilated. No adverse effects anticipated under normal conditions if adequately ventilated. However, if exposure occurs, remove the exposed individual to fresh air. Obtain medical attention immediately if irritation persists.

Acute Effects:
Dust associated with the handling of PVC powder as well as vapors or fumes liberated from PVC materials at high temperatures may be irritating to the eyes, skin and respiratory tract if not adequately ventilated.

Chronic Effects:
Chronic exposure to vapors or fumes from thermally decomposed or decomposing plastics or plastics that are otherwise Exposed to elevated temperatures or are processed at elevated temperatures may cause an asthma-like syndrome due to the inhalation of processing vapors or fumes. The onset of irritation may be delayed for several hours. Vapors or

fumes may accumulate within the facility during normal operating procedures that involve elevated temperatures. Exposure to these elevated concentrations, if not adequately ventilated, may have significant health effects.

Carcinogenic:
IARC has determined that there is inadequate evidence of carcinogenicity of a polyvinyl chloride resin in both animals and humans. The overall evaluation of polyvinyl chloride is Group 3, meaning that it is not classifiable as a carcinogen (IARC Vol. 19, 1979). Polyvinyl chloride is not listed as a carcinogen by OSHA, NIOSH, NTP, IARC or EPA.
Some additives used to make PVC compounds may contain metals, which in some chemical forms are suspected or confirmed carcinogens. These metals, if present, are bound in the crystalline structure of the additive, and to the supplier's best knowledge, do not present a significant health risk. Additionally, the low levels of additives used in this PVC product are also bound in the polymer matrix and to the best of the supplier's knowledge; do not present a significant health risk.

SECTION 5 FIRE FIGHTING MEASURES

Flash Ignition Temperature: >600F
Flammable Limits (% By Vol.)
Lower Explosive Limit (LEL) Not Applicable
Upper Explosive Limit (UEL) Not Applicable

Autoignition Temperature: Not Applicable

Fire Fighting Procedures/Fire Extinguishing Media
Carbon dioxide or water.

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 materials will not normally continue to burn after ignition without an external fire source. Do not allow firefighting runoff water to enter streams, rivers or lakes. The water may collect HCl and other combustion products. **See Section 10 for additional information.**

Fire-Fighting Equipment
Wear full bunker gear including a positive pressure self-contained breathing apparatus in any closed space.

SECTION 6 ACCIDENTAL RELEASE MEASURES

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

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

Clean Up:
Cleanup uncontaminated material and recycle into process. Sweep or vacuum material and place in a disposal container. Place unusable material into a closed, properly labeled container compatible with the product.

Personal Protective Equipment Recommended:
Eyes/Face: Safety Glasses
Hands: Cotton Gloves for handling molten plastic.
Skin: Protective clothing for contact with molten plastic.
Respirator: Not normally NIOSH approved respirator for dust generation from normal processing operations.
Hygiene: Wash thoroughly after handling and before eating or drinking.

SECTION 7 HANDLING AND STORAGE

Advice on Safe Handling
Handle in accordance with good industrial hygiene and safety practices. Use the proper personal protective equipment during handling. Minimize dust generation and accumulation.

Normal melt processing – Provide adequate ventilation to avoid buildup of fumes.

Cleanup – Avoid conditions that will result in significant decomposition caused by excessive heat history.

Protective measures
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. Use only in well-ventilated areas.

Storage
Store in a dry place away from direct sunlight, heat, sparks, and flames. Store away from food and beverages. Reseal containers immediately after use. Store in a well-ventilated, cool area equipped with high volume sprinkler heads.

SECTION 8 EXPOSURE CONTROLS / PERSONAL PROTECTION

See Section 6 for Personal Protective Equipment. All personal protective equipment should be selected in accordance with the hazard assessment required by 29 CFR 1910.132 (d).

Exposure Guidelines
No exposure limits have been established for the compound used in this product. It is recommended that exposure be kept below the limits for particulates not otherwise classified.
OSH-PEL: 15mg/M3 8 hr-TWA (total dust)
5 mg/M3 8 hr-TWA (respirable)

The American Conference of Governmental Industrial Hygienist (ACGIH) has established a Threshold Limit Value (TLV) (based on an 8-HR TWA exposure) of 1 mg/m3 for the respirable fraction. This TLV applies only to the polymerized form of vinyl chloride and monomer. The following materials may be present in this product, but are not anticipated to exceed exposure limits under normal conditions:

Chemical	OSHA-PEL	ACGIH-TLV
Calcium Carbonate	15mg/me 8 hr-TWA (total dust) 5mg/m3 8 hr-TWA (respirable)	10 mg/m3 8 hr-TWA
Carbon Black	3.5 mg/m3 8 hr-TWA	3 mg/m3 8 hr-TWA (Ihalable Fraction)
Titanium Dioxide	15 mg/m3 8 hr-TWA (total dust)	10 mg/m3 8 hr-TWA
Hydrogen Chloride	5 ppm Ceiling	2 ppm Ceiling
Vinyl Chloride Monomer	1 ppm, 8-hr TWA 5 ppm, peak exposure for 15 min. STEL	1ppm 8 hr-TWA

Hazardous constituents may be released during processes involving elevated temperatures. These constituents are dependent on processing conditions and should be verified by processor.

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

SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES

Appearance Pellets of varying size, hardness, and color

Odor No distinct odor

Boiling Point Solid

Melting Point Varies

Solubility None

Specific Gravity (Water = 1.0) 1.15 – 1.7

Vapor Density (Air = 1.0) Not Applicable

Vapor Pressure Not Applicable

pH Not Applicable

SECTION 10 STABILITY AND REACTIVITY

STABILITY: Material is stable under normal conditions.

CONDITIONS TO AVOID: Avoid elevated temperatures for prolonged periods of time. Elevated temperatures of above 235°C (455°F) can generate hazardous decomposition products.

MATERIALS TO AVOID: Do not allow this product to come in contact with acetal or acetal copolymers within the extruder or molding machine. At processing conditions, the two materials are mutually destructive and involve rapid degradation of the products. Equipment should be purged with acrylic, ABS, polystyrene, or other purge compound to avoid even trace amounts of this product and acetals from coming in contact with each other.

HAZARDOUS DECOMPOSITION PRODUCTS: Overheating may cause thermal degradation of PVC product. Fumes and vapors (including CO, CO2 and HCI) may be generated during this thermal degradation. Emissions are also possible during normal operating conditions, and may accumulate within an inadequately ventilated facility.

POSSIBILITY OF HAZARDOUS REACTIONS: Hazardous polymerization will not occur.

SECTION 11 TOXICOLOGICAL INFORMATION

The following information on polyvinyl chloride is extracted from both the HSDB and NTP databases.

Animal Toxicity
Oral: Rat, TD LO 210 gm/kg
Inhalation: Mouse, LC50 140 mg/M3/10M
RDLO = 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 to 24 months have shown no significant toxicological

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

SECTION 12 ECOLOGICAL INFORMATION

Refer to section 6, substance is not biodegradable in the environment and it is recommended to recycle all products.

The information given is based on data available for the material, the components of the material, and similar materials.

Environmental Fate:

Aquatic: No data available

Biodegradation: Not subject to biodegradation

Ecotoxicity: Material is not expected to be harmful to aquatic organisms. The probability of environmental toxicity or bioaccumulation in organisms is remote. Due caution should be exercised to prevent the accidental release of this material to the environment.

SECTION 13 DISPOSAL CONSIDERATIONS

Waste Management Information: Do not dump into any sewers, on the ground, or into any body of water. Any disposal practice must be in compliance with local, state, and federal laws and regulations (contact local or state environmental agency for specific rules). Waste characterization and compliance with applicable laws are the responsibility of the waste.

SECTION 14 TRANSPORT INFORMATION

Proper Shipping Name	Polyvinyl Chloride
DOT Hazard Class	Non-Hazardous
DOT Shipping I.D. No.	None
PG	None
Labeling	None
RQ	N/A

SECTION 15 REGULATORY INFORMATION

Regulatory information is not meant to be all-inclusive. It is the user's responsibility to ensure compliance with federal, state or provincial and local laws.

SARA Title III
Section 302 and 304 of the Act; Extremely Hazardous Substances (40 CFR 355)

COMPONENT	CAS No.	TPQ (lbs)	RQ (lbs)
None	N/A	N/A	N/A

Note: TPQ - Threshold Planning Quantity RQ - Reportable Quantity
Specific state and local requirements regarding reportable quantities should be reviewed prior to chemical use, as they may differ from the federal reportable quantity requirement as stated above.

Section 311 Hazard Categorization (40 CFR 370)

ACUTE	CHRONIC	FIRE	PRESSURE	REACTIVE

Not Listed

Section 313 Toxic Chemicals (40 CFR 372.65)

This product contains the following EPCRA Section 313 chemicals subject to the reporting requirements of Section 313 of the Emergency Planning and Community Right-to-Know Act of 1986

COMPONENT	CAS No.	WT. %

Not Listed

CERCLA

Section 102(a) Hazardous Substances (40 CFR 302.4)

COMPONENT	CAS No.	WT. %	RQ (lbs)

None

RCRA

This product, as supplied, is not a hazardous waste according to the USEPA's Toxicity Characteristic Leaching Procedure. Any physical or chemical modification of this product may change the TCLP test results.

Proposition 65

This product contains substances that are known to the State of California to cause cancer and/or reproductive toxicity.

Canadian Regulations

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

OSHA 29 CFR 1910.1017

This product may contain trace levels (<0.001%) of VCM. Under normal working conditions with adequate ventilation, neither the OSHA-PEL of 1 ppm (8-hr TWA), nor the OSHA-STEL (5.0 ppm) should be exceeded. The workplace should be monitored and if the level exceeds any of the PEL's or action levels, refer to 29 CFR 1910.1017.

SECTION 16 OTHER INFORMATION

IMPORTANT: The information and data herein are believed to be accurate and have been compiled from sources believed to be reliable. It is offered for your consideration, investigation and verification. Buyer assumes all risk of use, storage, handling of the product in compliance with applicable federal, state, and local laws and regulations. WIRE-BOND makes no warrant of any kind, express or implied concerning the accuracy or completeness of the information and data herein. WIRE-BOND will not be liable for claims relating to any party's use of or reliance on information and data contained herein regardless of whether it is claimed that the information and data are inaccurate, incomplete or otherwise misleading. This information relates to the material designated and may not be a valid for such material used in combination with any other materials nor in any process.

The information and recommendations contained herein are, to the best of WIRE-BOND knowledge and belief, accurate and reliable as of the date issued.
Revised in 6/2015 to comply with latest Standards of CFR 1910.1200.