SAFETY DATA SHEET

SECTION 1 PRODUCT AND COMPANY IDENTIFICATION

PRODUCT
Product Name: RUBBER CONTROL JOINT (Thermoplastic Elastomer) Expansion Joints
Product Description: Expansion Joints made from TPE
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
Supplier: WIRE-BOND
400 ROUTree Road
Charlotte, NC 28217
Emergency Phone (800)-849-3776
Product Technical Information (800)-849-6722

SECTION 2 HAZARDS IDENTIFICATION

This material is hazardous according to regulatory guidelines (see (M)SDS Section 15).

CLASSIFICATION:

Combustible Dust

Hazard Statements:
May form combustible dust concentrations in air.

Other hazard information:

HAZARD NOT OTHERWISE CLASSIFIED (HNOC): None as defined under 29 CFR 1910.1200.

PHYSICAL / CHEMICAL HAZARDS
WARNING: May form combustible dust concentrations in air (during processing/handling). Thermal burn hazard - contact with hot material may cause thermal burns. Spilled pellets present a slipping hazard on hard surfaces.

HEALTH HAZARDS
If dust is generated, it could scratch the eyes and cause minor irritation to the respiratory tract. When heated, the vapors/fumes given off may cause respiratory tract irritation.

ENVIRONMENTAL HAZARDS
No significant hazards.

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

SECTION 3 COMPOSITION / INFORMATION ON INGREDIENTS

This material is defined as a mixture.
**Hazardous Substance(s) or Complex Substance(s) required for disclosure**

<table>
<thead>
<tr>
<th>Name</th>
<th>CAS#</th>
<th>Concentration*</th>
<th>GHS Hazard Codes</th>
</tr>
</thead>
<tbody>
<tr>
<td>AMORPHOUS SILICON DIOXIDE</td>
<td>112926-00-8</td>
<td>0 - 4%</td>
<td>None</td>
</tr>
<tr>
<td>CARBON BLACK</td>
<td>1333-86-4</td>
<td>0 - 6%</td>
<td>None</td>
</tr>
<tr>
<td>TIN DICHLORIDE</td>
<td>7772-99-8</td>
<td>0.14 - 0.45%</td>
<td>H302, H314(1), H400(M factor 1)</td>
</tr>
<tr>
<td>ZINC OXIDE</td>
<td>1314-13-2</td>
<td>0 - 0.7%</td>
<td>H400(M factor 1), H410(M factor 1)</td>
</tr>
</tbody>
</table>

* All concentrations are percent by weight unless material is a gas. Gas concentrations are in percent by volume.

**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.

As per paragraph (i) of 29 CFR 1910.1200, formulation is considered a trade secret and specific chemical identity and exact percentage (concentration) of composition may have been withheld. Specific chemical identity and exact percentage composition will be provided to health professionals, employees, or designated representatives in accordance with applicable provisions of paragraph (i).

**SECTION 4**

**FIRST AID MEASURES**

**INHALATION**

In case of adverse exposure to vapors and / or aerosols formed at elevated temperatures, immediately remove the affected victim from exposure. Administer artificial respiration if breathing is stopped. Keep at rest.

**SKIN CONTACT**

Wash contact areas with soap and water. For hot product: Immediately immerse in or flush affected area with large amounts of cold water to dissipate heat. Cover with clean cotton sheeting or gauze and get prompt medical attention.

**EYE CONTACT**

Flush thoroughly with water. If irritation occurs, get medical assistance.

**INGESTION**

First aid is normally not required. Seek medical attention if discomfort occurs.

**SECTION 5**

**FIRE FIGHTING MEASURES**

**EXTINGUISHING MEDIA**

**Appropriate Extinguishing Media:** Use water fog, foam, dry chemical or carbon dioxide (CO2) to extinguish flames.

**Inappropriate Extinguishing Media:** Straight Streams of Water

**FIRE FIGHTING**

**Fire Fighting Instructions:** Assure an extended cooling down period to prevent re-ignition. Evacuate area. Prevent runoff from fire control or dilution from entering streams, sewers, or drinking water supply. Firefighters should use standard protective equipment and in enclosed spaces, self-contained breathing apparatus (SCBA). Use water spray to cool fire exposed surfaces and to protect personnel.

**Unusual Fire Hazards:** Explosion: Avoid generating dust; fine dust dispersed in air in sufficient concentration and in the presence of an ignition source is a potential dust explosion hazard.
Hazardous Combustion Products: Incomplete combustion products, Formaldehyde, Smoke, Fume, Oxides of carbon, Flammable hydrocarbons

FLAMMABILITY PROPERTIES
Flash Point [Method]: N/A
Flammable Limits (Approximate volume % in air): LEL: N/D  UEL: N/D
Autoignition Temperature: N/A

SECTION 6  ACCIDENTAL RELEASE MEASURES

NOTIFICATION PROCEDURES
In the event of a spill or accidental release, notify relevant authorities in accordance with all applicable regulations. US regulations require reporting releases of this material to the environment which exceed the applicable reportable quantity or oil spills which could reach any waterway including intermittent dry creeks. The National Response Center can be reached at (800)424-8802.

PROTECTIVE MEASURES
Avoid contact with spilled material. Dust Deposits should not be allowed to accumulate on surfaces, as these may form an explosive mixture if they are released into the atmosphere in sufficient concentration. Avoid dispersal of dust in the air (for example, clearing dust surfaces with compressed air). Prevent dust exposure to ignition sources. For example, use non-sparking tools and prohibit smoking, flares, sparks or flames in immediate area. See Section 5 for firefighting information. See the Hazard Identification Section for Significant Hazards. See Section 4 for First Aid Advice. See Section 8 for advice on the minimum requirements for personal protective equipment. Additional protective measures may be necessary, depending on the specific circumstances and/or the expert judgment of the emergency responders.

SPILL MANAGEMENT
Land Spill: Not applicable
Water Spill: Retrieve from surface (product should float in water)

ENVIRONMENTAL PRECAUTIONS
Not applicable

SECTION 7  HANDLING AND STORAGE

HANDLING
Minimize dust generation and accumulation Avoid conditions generating heat during transfer operations.

Loading/Unloading Temperature: [Ambient]
Transport Temperature: [Ambient]
Transport Pressure: [Ambient]

Static Accumulator: This material is not a static accumulator.

STORAGE
Store in a cool, dry place. Do not store in open or unlabelled containers.

Storage Temperature: [Ambient]
Storage Pressure: [Ambient]

Suitable Containers/Packing: Bags (20/25kg); Boxes
SECTION 8 EXPOSURE CONTROLS / PERSONAL PROTECTION

EXPOSURE LIMIT VALUES

Exposure limits/standards (Note: Exposure limits are not additive)

<table>
<thead>
<tr>
<th>Substance Name</th>
<th>Form</th>
<th>Limit / Standard</th>
<th>NOTE</th>
<th>Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>CARBON BLACK</td>
<td>Inhalable fraction.</td>
<td>TWA 3.5 mg/m³</td>
<td>N/A</td>
<td>OSHA Z1</td>
</tr>
<tr>
<td>CARBON BLACK</td>
<td>TWA 3 mg/m³</td>
<td>N/A</td>
<td>ACGIH</td>
<td></td>
</tr>
<tr>
<td>TIN DICHLORIDE [as Sn]</td>
<td>TWA 2 mg/m³</td>
<td>N/A</td>
<td>OSHA Z1</td>
<td></td>
</tr>
<tr>
<td>TIN DICHLORIDE [as Sn]</td>
<td>TWA 2 mg/m³</td>
<td>N/A</td>
<td>ACGIH</td>
<td></td>
</tr>
<tr>
<td>ZINC OXIDE</td>
<td>Fume.</td>
<td>TWA 5 mg/m³</td>
<td>N/A</td>
<td>OSHA Z1</td>
</tr>
<tr>
<td>ZINC OXIDE</td>
<td>Respirable fraction.</td>
<td>TWA 5 mg/m³</td>
<td>N/A</td>
<td>OSHA Z1</td>
</tr>
<tr>
<td>ZINC OXIDE</td>
<td>Total dust.</td>
<td>TWA 15 mg/m³</td>
<td>N/A</td>
<td>OSHA Z1</td>
</tr>
<tr>
<td>ZINC OXIDE</td>
<td>Respirable fraction.</td>
<td>STEL 10 mg/m³</td>
<td>N/A</td>
<td>ACGIH</td>
</tr>
<tr>
<td>ZINC OXIDE</td>
<td>Respirable fraction.</td>
<td>TWA 2 mg/m³</td>
<td>N/A</td>
<td>ACGIH</td>
</tr>
</tbody>
</table>

NOTE: Limits/standards shown for guidance only. Follow applicable regulations.

No biological limits allocated.

ENGINEERING CONTROLS

The level of protection and types of controls necessary will vary depending upon potential exposure conditions. Control measures to consider:

If product is heated (as in recycling), adequate ventilation should be provided so that exposure limits are not exceeded. SPECIAL PRECAUTIONS: Should significant vapors/fumes be generated during thermal processing of this product, it is recommended that work stations be monitored for the presence of thermal degradation by-products which may evolve at elevated temperatures (for example, oxygenated components). Processors of this product should assure that adequate ventilation or other controls are used to control exposure. It is recommended that the current ACGIH-TLVs for thermal degradation by-products be observed. Contact your local sales representative for further information. It is recommended that all dust control equipment such as local exhaust ventilation and material transport systems involved in handling of this product are designed and maintained to minimize dust generation and accumulation. Ensure that dust-handling systems (such as exhaust ducts, dusts collectors, vessels, and processing equipment) are designed to minimize the potential for dust ignition and prevent explosion propagation. For example, use explosion relief vents, an explosion suppression system or inert equipment internals. Additional examples of proper equipment include using only appropriately classified electrical equipment and powered industrial trucks.

PERSONAL PROTECTION

Personal protective equipment selections vary based on potential exposure conditions such as applications, handling practices, concentration and ventilation. Information on the selection of protective equipment for use with this material, as provided below, is based upon intended, normal usage.

Respiratory Protection: If engineering controls do not maintain airborne contaminant concentrations at a
level which is adequate to protect worker health, an approved respirator may be appropriate. Respirator selection, use, and maintenance must be in accordance with regulatory requirements, if applicable. Types of respirators to be considered for this material include:

- Particulate air-purifying respirator approved for dust / oil mist is recommended.

For high airborne concentrations, use an approved supplied-air respirator, operated in positive pressure mode. Supplied air respirators with an escape bottle may be appropriate when oxygen levels are inadequate, gas/vapor warning properties are poor, or if air purifying filter capacity/rating may be exceeded.

**Hand Protection:**
If product is hot (as when being recycled), thermally protective, chemical resistant gloves are recommended. If contact with forearms is likely, wear gauntlet style gloves.

**Eye Protection:** When grinding product, safety glasses with side shields are recommended.

**Skin and Body Protection:** None

**Specific Hygiene Measures:** None

**ENVIRONMENTAL CONTROLS**
Comply with applicable environmental regulations limiting discharge to air, water and soil. Protect the environment by applying appropriate control measures to prevent or limit emissions.

**SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES**

Note: Physical and chemical properties are provided for safety, health and environmental considerations only and may not fully represent product specifications. Contact the Supplier for additional information.

**GENERAL INFORMATION**
- **Physical State:** Solid
- **Form:** Pellet
- **Color:** Natural or black (colorable)
- **Odor:** Rubberlike
- **Odor Threshold:** N/D

**IMPORTANT HEALTH, SAFETY, AND ENVIRONMENTAL INFORMATION**
- **Relative Density (at 20 °C):** 0.9 - 1
- **Flammability (Solid, Gas):** N/A
- **Flash Point [Method]:** N/A
- **Flammable Limits (Approximate volume % in air):** N/A
- **Boiling Point / Range:** N/A
- **Decomposition Temperature:** N/D
- **Vapor Density (Air = 1):** N/A
- **Vapor Pressure:** N/A
- **Evaporation Rate (n-butyl acetate = 1):** N/A
- **pH:** N/A
- **Solubility in Water:** Negligible
- **Viscosity:** N/A
- **Oxidizing Properties:** See Hazards Identification Section.

**OTHER INFORMATION**
Freezing Point: N/D
Melting Point: 175°C (347°F) - 230°C (446°F) Hygroscopic: Yes
DMSO Extract (mineral oil only), IP-346: < 3 %wt

SECTION 10  STABILITY AND REACTIVITY

REACTIVITY: See sub-sections below.

STABILITY: Material is stable under normal conditions.

CONDITIONS TO AVOID: Avoid elevated temperatures for prolonged periods of time. Elevated temperatures. >260 °C (500 °F)

MATERIALS TO AVOID: Strong oxidizers, Halogenated compounds, Phenolic resins, Acetal resins

HAZARDOUS DECOMPOSITION PRODUCTS: Material does not decompose at ambient temperatures.

POSSIBILITY OF HAZARDOUS REACTIONS: Hazardous polymerization will not occur.

SECTION 11  TOXICOLOGICAL INFORMATION

INFORMATION ON TOXICOLOGICAL EFFECTS

This product is minimally toxic based on its polymeric structure.

OTHER INFORMATION

For the product itself:

Dust may be irritating to the eyes and respiratory tract. Elevated temperatures or mechanical action may form vapors, mists or fumes which may be irritating to the eyes and respiratory tract.

Contains:
Carbon black: Certain carbon blacks have proved carcinogenic in animal studies. Inhalation animal studies of high concentrations resulted in chronic inflammation, lung fibrosis and lung tumors. Epidemiology studies of workers include findings of bronchitis, pneumonia, emphysema and excess cancer. Substances bound in a polymer, such as is the case with this product, should present little or no hazard.
For additives that are encapsulated in the polymer: Under the normal conditions for processing and use of this polymer product the encapsulated additives are not expected to pose any health hazard. However, grinding of the polymer is not recommended without the use of appropriate measures to control exposure (see Section 8 - Engineering Controls).

The following ingredients are cited on the following lists:

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>CAS Number</th>
<th>List Citations</th>
</tr>
</thead>
<tbody>
<tr>
<td>CARBON BLACK</td>
<td>1333-86-4</td>
<td>IARC 2B</td>
</tr>
</tbody>
</table>

SECTION 12  ECOLOGICAL INFORMATION

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

ECOTOXICITY

Material -- Not expected to be harmful to aquatic organisms.
MOBILITY
Material -- Low solubility and floats and is expected to migrate from water to the land. Expected to partition to sediment and wastewater solids.

PERSISTENCE AND DEGRADABILITY
Biodegradation:
Material -- Expected to be persistent.

NOTE: Material contains additives that are encapsulated in the polymer. Under normal conditions of processing and use the encapsulated additives are expected to have very limited solubility in water and, as a result, are not expected to cause adverse effects in the aquatic environment.

SECTION 13 DISPOSAL CONSIDERATIONS
Disposal recommendations based on material as supplied. Disposal must be in accordance with current applicable laws and regulations, and material characteristics at time of disposal.

DISPOSAL RECOMMENDATIONS
Suitable routes of disposal are supervised incineration, preferentially with energy recovery, or appropriate recycling methods in accordance with applicable regulations and material characteristics at the time of disposal.

REGULATORY DISPOSAL INFORMATION
RCRA Information: The unused product, in our opinion, is not specifically listed by the EPA as a hazardous waste (40 CFR, Part 261D), nor is it formulated to contain materials which are listed as hazardous wastes. It does not exhibit the hazardous characteristics of ignitability, corrosivity or reactivity and is not formulated with contaminants as determined by the Toxicity Characteristic Leaching Procedure (TCLP). However, used product may be regulated.

SECTION 14 TRANSPORT INFORMATION
LAND (DOT): Not Regulated for Land Transport

LAND (TDG): Not Regulated for Land Transport

SEA (IMDG): Not Regulated for Sea Transport according to IMDG-Code

Marine Pollutant: No

AIR (IATA): Not Regulated for Air Transport

SECTION 15 REGULATORY INFORMATION
OSHA HAZARD COMMUNICATION STANDARD: This material is considered hazardous in accordance with OSHA HazCom 2012, 29 CFR 1910.1200.

Listed or exempt from listing/notification on the following chemical inventories: TSCA
EPCRA SECTION 302: This material contains no extremely hazardous substances.

CWA / OPA: not applicable

SARA (311/312) REPORTABLE HAZARD CATEGORIES: None.

SARA (313) TOXIC RELEASE INVENTORY: This product contains no chemicals subject to the supplier notification requirements of the SARA 313 Toxic Release Program.

REACH: This product has not been evaluated to determine its compliance with REACH regulations governing its use in EU countries. It is therefore assumed to be noncompliant.

RoHS: This product has not been evaluated to determine its compliance with RoHS regulations governing its use in EU countries. It is therefore assumed to be noncompliant.

The following ingredients are cited on the lists below:

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>CAS Number</th>
<th>List Citations</th>
</tr>
</thead>
<tbody>
<tr>
<td>AMORPHOUS SILICON DIOXIDE</td>
<td>112926-00-8</td>
<td>16, 17, 18</td>
</tr>
<tr>
<td>CARBON BLACK</td>
<td>1333-86-4</td>
<td>1, 4, 10, 13, 16, 17, 18</td>
</tr>
<tr>
<td>MAGNESIUM OXIDE</td>
<td>1309-48-4</td>
<td>1, 4, 13, 16, 17</td>
</tr>
<tr>
<td>OCTADECANOIC ACID, ZINC SALT (ZINC STEARATE)</td>
<td>557-05-1</td>
<td>15</td>
</tr>
<tr>
<td>ZINC OXIDE</td>
<td>1314-13-2</td>
<td>15</td>
</tr>
</tbody>
</table>

--REGULATORY LISTS SEARCHED--

1 = ACGIH ALL  2 = ACGIH A1  3 = ACGIH A2  4 = OSHA Z  5 = TSCA 4
6 = TSCA 5a2  7 = TSCA 5e  8 = TSCA 6  9 = TSCA 12b  10 = CA P65 CARC
11 = CA P65 REPRO  12 = CA RTK  13 = IL RTK  14 = LA RTK  15 = MI 293
16 = MN RTK  17 = NJ RTK  18 = PA RTK  19 = RI RTK

Code key: CARC=Carcinogen; REPRO=Reproductive, RTK=Right to Know

SECTION 16  OTHER INFORMATION

This warning is given to comply with California Health and Safety Code 25249.6 and does not constitute an admission or a waiver of rights. This product contains a chemical known to the State of California to cause cancer.

N/D = Not determined, N/A = Not applicable

KEY TO THE H-CODES CONTAINED IN SECTION 3 OF THIS DOCUMENT (for information only):

H302: Harmful if swallowed; Acute Tox Oral, Cat 4
H314(1): Causes severe skin burns and eye damage; Skin Corr/Irritation, Cat 1
H400: Very toxic to aquatic life; Acute Env Tox, Cat 1
H410: Very toxic to aquatic life with long lasting effects; Chronic Env Tox, Cat 1

THIS SAFETY DATA SHEET CONTAINS THE FOLLOWING REVISIONS:
Updates made in accordance with implementation of GHS requirements.

**THIS SDS COVERS THE FOLLOWING MATERIALS:**

TPE Expansion Joints for use in construction,

The information and recommendations contained herein are, to the best of WIRE-BOND’s knowledge and belief, accurate and reliable as of the date issued.