1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING

**Product identifier**

Product Name: Glass Reinforced Thermoset Polyester

**Other means of identification**

Product Code(s): GPO-3 Tubes

Synonyms: None

**Recommended use of the chemical and restrictions on use**

Recommended use: Arc/track & Flame resistant laminate for electrical applications

Uses advised against: No information available

**Details on the supplier of the safety data sheet**

Supplier Name: Röchling Glastic Composites, Inc.

Supplier Address: 4321 Glenridge Road

Cleveland, Ohio 44121-2189

Supplier Phone Number: (216) 486-0100

Emergency Phone number: (216) 486-0100 (8am to 5pm)

(216) 287-8898 (24 hours)

2. HAZARDS IDENTIFICATION

**Classification**

In its manufactured and shipped state, the product is considered Non-Hazardous, processing, however, may generate dust and particulate matter.

<table>
<thead>
<tr>
<th>GHS Information</th>
<th>Not classified as a hazardous substance.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hazard Statement (USA)</td>
<td>Not classified as a hazardous substance.</td>
</tr>
<tr>
<td>Hazard Statement (EU)</td>
<td>Not classified as a hazardous substance.</td>
</tr>
<tr>
<td>Signal Word</td>
<td>Not Applicable</td>
</tr>
<tr>
<td>Hazard Pictogram</td>
<td>Not Applicable</td>
</tr>
<tr>
<td>Other Labeling Requirements</td>
<td>Not Applicable</td>
</tr>
</tbody>
</table>
**Emergency Overview**

Product is various colored sheets with no odor. Dust generated by processing product may cause irritation of eyes, skin, mucous membranes, and respiratory tract. The black, brown, and gray colors of the product contain carbon black which has been identified as a potential carcinogen, however, as a dust will be bound in solid polyester resin. Wear appropriate personal protective equipment. Keep individuals not involved in the clean-up out of the area. Pick up released product with appropriate implements and return to original container if reusable. If not reusable, place in appropriate containers for disposal. Although the product itself is non-hazardous, material collected during clean-up operations may be contaminated and should be treated as hazardous unless specific testing, including TCLP, shows the collected material to be non-hazardous. Product is not expected to present an environmental hazard.

**Precautionary Statements – Prevention**

Wear appropriate personal protective equipment to avoid breathing dusts and particulate matter that may be generated during processing or handling. Dusts and particulate matter may cause irritation of the eyes, skin, mucous membranes and respiratory tract. Wear appropriate personal protective clothing. Provide adequate ventilation for all operations.

**Precautionary Statements – Response**

Keep individuals not involved in the clean-up of dusts out of the area.

**Precautionary Statements – Storage**

Pick up released product and dust with appropriate implements and return to original container if reusable. If not reusable, place in appropriate containers for disposal.

**Precautionary Statements – Disposal**

Pick up released product with appropriate implements and return to original container if reusable. If not reusable, place in appropriate containers for disposal. Proprietary polymerized mixture of unsaturated polyester resins, metal carbonates, fiberglass, and pigments. Contact Röchling Corporation for the pigments in a specific product, specifying the part number. Released product and dusts should be tested with applicable methods to determine disposal requirements.

**Hazardous not otherwise classified (HNOC)**

Not Applicable

**Unknown Toxicity**

0% of the mixture consists of ingredient(s) of unknown toxicity.
Potential Health Effects

Eye Contact: Dusts and particulates may cause irritation of the eyes.

Skin Contact: Dusts and particulates may cause irritation of the skin.

Skin Absorption: Not known to be absorbed through the intact skin.

Ingestion: Not expected to be an important route of entry into the body. Ingestion of large quantities of the product dusts or particulates may cause gastric discomfort or distress.

Inhalation: Dusts or particulates may cause irritation of the mucous membranes and respiratory tract.

Interactions with Other Chemicals

No information available.

Other Information

Dust may cause slight eye irritation.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Solid sheets and pultruded shapes are composed of a proprietary mixture of polyester resin, hydroxides, salts, inorganic fibers, pigments, processing additives, and fiberglass reinforcement. During the manufacturing process, this mixture is cured or hardened into a stable, solid material that is non-hazardous when handled or processed in accordance with good manufacturing and industrial hygiene practices.

4. FIRST AID MEASURES

Indication of any immediate medical attention and special treatment needed

For Released Product and Dust:

Inhalation: Remove exposed person to fresh air. If breathing is difficult, oxygen may be administered. If breathing has stopped, artificial respiration should be started immediately. Seek medical attention.

Eyes: Flush with tepid water for at least 20 minutes, holding the eyelids wide open. Seek medical attention if irritation develops.

Skin: Wash thoroughly with mild soap and water. Seek medical attention if irritation develops. Remove any contaminated clothing and launder thoroughly before reuse.

Ingestion: Not expected to be an important route of entry into the body. If large amounts of product dusts or particulates are ingested, seek medical attention.
### 5. FIRE-FIGHTING MEASURES

<table>
<thead>
<tr>
<th>Suitable Extinguishing Media</th>
<th>Use extinguishing measures that are appropriate to local circumstances and the surrounding environment. Product will not burn. Material in or near fires should be cooled with a water spray or fog if compatible with fire-fighting techniques for the other materials involved in the fire. A self-contained breathing apparatus, operating in the positive-pressure mode, and full fire-fighting gear should be worn for combating fires.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Unsuitable Extinguishing Media</td>
<td>Do not use a heavy water stream. Use of heavy stream of water may spread fire.</td>
</tr>
<tr>
<td>Specific Hazards Arising from the Chemical</td>
<td><strong>Fire:</strong> Product is not flammable. Small chips, turnings, dust and fines from processing may produce a class ST-1 combustible dust. <strong>Explosion:</strong> Product itself is not explosive but if dust is generated, dust clouds suspended in air can be explosive. <strong>Reactivity:</strong> Hazardous reactions will not occur under normal conditions.</td>
</tr>
<tr>
<td>Hazardous Combustion Products</td>
<td>Do not store with or near incompatible materials cited in Section 10. Extreme heat and fire may result in dense smoke, Carbon dioxide (CO2), Carbon Monoxide (CO), oxides of nitrogen, and low molecular weight organic species whose composition and toxicity has not been determined. Good housekeeping and engineering practices should be employed to prevent the generation and accumulation of dusts. Wet mopping or vacuuming is recommended to clean up any dusts that may be generated during handling and processing.</td>
</tr>
</tbody>
</table>
| Explosion Data | Sensitivity to Mechanical Impact: **No**  
Sensitivity to Static Discharge: **No**  |
| Protective equipment and precautions for firefighters | As in any fire, wear self-contained breathing apparatus pressure demand, MSHA/NIOSH (approved or equivalent and full protective gear). |

**Notes to Physician**

**Chronic and Carcinogenicity:** Prolonged exposure to dusts or particulates may cause dermatitis. The carbon black pigment in the black, brown, and gray colors of the product has been identified as a potential carcinogen. See Section 11. Pre-existing skin and lung conditions may be aggravated by exposure to the components of the product.
### Person precautions, protective equipment and emergency procedures

#### Engineering Controls
Pick up released product with appropriate implements and return to original container if reusable. If not reusable, place in appropriate containers for disposal. Not normally required under normal and expected conditions of use. If significant amounts of dust are generated during processing, the operation should be evaluated by a professional industrial hygienist and local exhaust ventilation provided if deemed necessary. Local exhaust ventilation systems should be designed by a professional engineer.

#### Personal Precautions
- **Respiratory Protection:** Not normally required under normal and expected conditions of use. If significant amounts of dust are generated during processing, the operation should be evaluated by a professional industrial hygienist and appropriate respiratory protection used if deemed necessary. All use of respiratory protections should be in accordance with the provisions of OSHA’s Respiratory Protection Standard, 29 CFR 1910.134.
- **Eye Protection:** Safety glasses with side-shields are recommended for all operations.
- **Protective Gloves:** Polymeric gloves are recommended to prevent possible irritation. PVC or similar materials are recommended.
- **General:** A polymeric coated apron or other body covering is recommended where regular work clothing may become contaminated with the product. All soiled or dirty clothing and personal protective equipment should be thoroughly cleaned before reuse.

#### Environmental Precautions
Although the product itself is non-hazardous, materials collected during clean-up operations may be contaminated and should be treated as hazardous unless specific testing, including TCLP, shows the collected materials to be non-hazardous.

#### Methods and material for containment and cleaning up
- Pick up released product with appropriate implements and return to original container if reusable. If not reusable, place in appropriate containers for disposal. Appropriate personal protective equipment cited in Section 8 should be worn during all clean-up operations. Although the product itself is non-hazardous, materials collected during clean-up operations may be contaminated and should be treated as hazardous unless specific testing, including TCLP, shows the collected materials to be non-hazardous.

#### Methods for Containment
Do not store with or near incompatible materials cited in Section 10. Store out of contact with the elements.

#### Methods for cleaning up
Appropriate personal protective equipment cited in Section 6 should be worn during all cleanup operations. Although the product itself is non-hazardous, materials collected during clean-up operations may be contaminated and should be treated as hazardous unless specific testing, including TCLP, shows the collection materials to be non-hazardous.
7. HANDLING AND STORAGE

**Precautions For Safe Handling**
Do not store with or near incompatible materials cited in Section 10. Store out of contact with the elements.

**Handling**
Appropriate personal protective equipment cited in Section 6 should be worn during handling. Good housekeeping and engineering practices should be employed to prevent the generation and accumulation of dusts. Wet mopping or vacuuming is recommended to clean up any dusts that may be generated during handling and processing. Wash hands and face thoroughly before eating, drinking, or smoking.

**Conditions for safe storage, including any incompatibilities**

**Storage**
Store out of contact with the elements.

**Incompatible Products**
None Known based on information supplied

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

**Control parameters**

**Exposure Guidelines**
This product, as supplied, does not contain any hazardous materials with occupational exposure limits established by the region specific regulatory bodies

**Appropriate engineering controls**

**Engineering Measures**
Not normally required under normal and expected conditions of use. If significant amounts of dust are generated during processing, the operation should be evaluated by a professional industrial hygienist and local exhaust ventilation provided if deemed necessary. Local exhaust ventilation systems should be designed by a professional engineer.

**Individual Protection measures, Such as personal protection equipment**

**Eye/Face Protection**
Safety glasses with side shields are recommended for all operations.

**Skin and Body Protection**
Protective gloves: Cloth or Polymeric gloves are recommended to prevent possible irritation. General: A polymeric coated apron or other body covering is recommended where regular work clothing may become contaminated with the product. All soiled or dirty clothing and personal protective equipment should be thoroughly cleaned before reuse.
Respiratory Protection

Not normally required under normal and expected conditions of use. If significant amounts of dust are generated during processing, the operation should be evaluated by a professional industrial hygienist and appropriate respiratory protection used, if deemed necessary. All use of respiratory protections should be in accordance with the provisions of OSHA’S Respiratory Protection Standard, 29 CFR 1910.134.

Hygiene Measures

Handle in accordance with good industrial hygiene and safety practice.

9. PHYSICAL AND CHEMICAL PROPERTIES

<table>
<thead>
<tr>
<th>APPEARANCE AND PHYSICAL STATE:</th>
<th>OCTANOL/WATER PARTITION COEFFICIENT:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Various Colored Sheets and Shapes</td>
<td>ND</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>VAPOR DENSITY (AIR =1):</th>
<th>MELT POINT:</th>
</tr>
</thead>
<tbody>
<tr>
<td>NA</td>
<td>ND</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>VAPOR PRESSURE:</th>
<th>EVAPORATION RATE (BUTYL ACETATE = 1):</th>
</tr>
</thead>
<tbody>
<tr>
<td>NA</td>
<td>NA</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>ODOR:</th>
<th>SPECIFIC GRAVITY/BULK DENSITY:</th>
</tr>
</thead>
<tbody>
<tr>
<td>None</td>
<td>1.7 - 2.2 g/cc</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>% VOLATILE BY VOLUME:</th>
<th>BOILING POINT:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not Volatile</td>
<td>ND</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>% SOLUBILITY (H20):</th>
<th>pH:</th>
</tr>
</thead>
<tbody>
<tr>
<td>&lt;1</td>
<td>NA</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>OTHER:</th>
<th>Auto Ignition Temperature:</th>
</tr>
</thead>
<tbody>
<tr>
<td>NA</td>
<td>NA</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>FLASH POINT:</th>
<th>LEL:</th>
<th>UEL:</th>
</tr>
</thead>
<tbody>
<tr>
<td>NA</td>
<td>NA</td>
<td>NA</td>
</tr>
</tbody>
</table>

10. STABILITY AND REACTIVITY

Reactivity

Hazardous reactions will not occur under normal conditions

Chemical stability

Product is stable under recommended handling and storage conditions...

Possibility of Hazardous Reactions

Hazardous polymerization will not occur.

Conditions to Avoid

Do not store with or near strong acids or bases or strong oxidizing or reducing agents; avoid generation of airborne dust or excessive dust accumulation.

Incompatibility materials

Do not store with or near strong acids or bases or strong oxidizing or reducing agents.
Hazardous Decompositions Products

Hazardous Decomposition Products: Thermal decomposition may produce dense smoke, oxides of carbon, nitrogen, and sulfur, and low molecular weight organic species whose composition and toxicity has not been determined.

11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure:

<table>
<thead>
<tr>
<th>Product information</th>
<th>The black, brown, and gray colors of the product contain carbon black which has been identified as a potential carcinogen.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Inhalation</td>
<td>Dust from this product may cause irritation to the respiratory tract.</td>
</tr>
<tr>
<td>Eye Contact</td>
<td>Eye contact with dust from product may cause mechanical irritation.</td>
</tr>
<tr>
<td>Skin Contact</td>
<td>Prolonged contact with large amounts of dust may cause mechanical irritation</td>
</tr>
<tr>
<td>Chronic Symptoms</td>
<td>This product contains polymers which bind the hazardous components and make inhalation unlikely. If fine dust should be produced, chronic inhalation may cause; reduced lung function, and inflammation.</td>
</tr>
</tbody>
</table>

12. ECOLOGICAL INFORMATION

<table>
<thead>
<tr>
<th>Ecotoxicity</th>
<th>Detailed studies on the environmental fate of the produce have not been conducted. The product is, however, not expected to present a hazard to aquatic and terrestrial flora and fauna.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Persistence and Degradability</td>
<td>No information available.</td>
</tr>
<tr>
<td>Bioaccumulation</td>
<td>No information available.</td>
</tr>
<tr>
<td>Other adverse effects</td>
<td>No information available.</td>
</tr>
</tbody>
</table>

13. DISPOSAL CONSIDERATIONS

Waste Treatment Methods

As supplied, product is considered non-hazardous. It should be disposed of in an approved landfill in accordance with all local, state, and federal regulations. If processed used or dust waste product is disposed of, testing, including TCLP, should be conducted to determine hazard characteristics.

Disposal methods
Not currently regulated under Department of Transportation regulations.

Contaminated Packaging
No information available

14. TRANSPORT INFORMATION

In accordance with DOT: Not regulated for transport
In accordance with IMDG: Not regulated for transport
In accordance with IATA: Not regulated for transport
In accordance with TDG: Not regulated for transport

15. REGULATORY INFORMATION

U.S. TSCA Inventory All ingredients are on the inventory or are exempt from listing.
SARA Section 313 This product typically does not contain any compounds which are reportable under section 313 of the Superfund Amendments and Reauthorization Act of 1986. The white, gray, and tan colors of the product can contain up to 2.2% zinc compounds which are reportable under Section 313 of the Superfund Amendments and Reauthorization Act of 1986. Contact Röchling with the part number to obtain the exact percentage.
OSHA Hazard Communication Categories Irritant, Lung Hazard, Skin Hazard, Kidney Hazard, Liver Hazard, Carcinogen and Cardiovascular System.
SARA Hazard Categories Not Hazardous as supplied, In use: Acute Hazard, Chronic Hazard
California Proposition 65 This product is not listed and does not contain chemicals listed in the State of California to cause cancer or reproductive toxicity.
CANADA – WHMIS Classification Non-hazardous.
This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the SDS contains all the Information required by the Controlled Products Regulations.
European Regulations This product complies with the RoHS directive 2002/95/EC, the commission decision 2005/618/EC and WEEE requirements under commission directive 2002/96/EC.

16. OTHER INFORMATION

Not Est. = Not Established; NA = Not Applicable; ND = Not Determined
IMPORTANT NOTICE FROM RÖCHLING CORPORATION

All of the information, suggestions, and recommendations pertaining to the properties and uses of the Röchling product described herein are based on tests and data believed to be accurate, however, the final determination regarding the suitability of any material described herein for the use contemplated, the manner of use, and whether the use infringes on any patents is the sole responsibility of the user. THERE IS NO WARRANTY OF MERCHANTABILITY OR FITNESS FOR PARTICULAR USE. Under no circumstances shall we be liable for incidental or consequential loss or damage.