Manufacturers MSDS Reference ID Number: RDGA_NES680G

Section 1: Product and Company Identification
Product Name: ESM-GBF  Chemical Name: Glossy Backlit Film
Formula: Coated polyester.
Product Use: Design for printing with eco-solvent ink.

Supplier Information:
Supplier Name: Roland DGA Corporation
Supplier Phone Number: 949-727-2100
Address: 15363 Barranca Parkway, Irvine, CA 92618
Emergency Contact Information: Same as above

Section 2. Composition / Information on Ingredients
This product is coated ink receptive layer onto base polyethylene terephthalate film.

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>CAS Number</th>
<th>%wt/wt</th>
</tr>
</thead>
<tbody>
<tr>
<td>Polyethylene Terephthalate</td>
<td>25038-59-9</td>
<td>65-75</td>
</tr>
<tr>
<td>Polymer with Chloroethylene and Vinyl Acetate</td>
<td>9005-09-8</td>
<td>15-20</td>
</tr>
<tr>
<td>Titanium Dioxide</td>
<td>13463-67-7</td>
<td>2-4</td>
</tr>
<tr>
<td>Additives</td>
<td>.</td>
<td>0.5-1</td>
</tr>
</tbody>
</table>

Section 3. Hazards Identification
HIMS Ratings (scale 0~4):
Health 1  Flammability 1  Reactivity 0

Potential Health Effects
Skin Contact: Temporary irritation may occur.
Eye Contact: Solid or dusts may causes several eye irritations with redness and pain.
Inhalation: Inhalation of this product is unlikely. However, cause irritation to the nose and throat.
Ingestion: Ingestion of this product is unlikely. However, ingestion of product may produce gastrointestinal irritation and disturbances.

Section 4. First Aid Measures
Eye contact: Wash exposed eye with soap and water.
Skin Contact: Wash exposed skin with soap and water.
Inhalation: If inhaled, Remove to fresh air.
Ingestion: This product is not intended to be ingested or eaten. If this product is ingested, severe irritation of the Gastrointestinal (GI) tract may occur, and should be treated symptomatically. Seek medical attention.
Section 5. Fire Fighting Measures
Flash Point / Method: Not applicable
NFPA Rating (Scale 0~4):
Health 1  Flammability 1  Reactivity 0
Flammable limits in Air: LEL/ UEL  No data available
Autoignition temperature: Not applicable
Explosion:
Not Applicable
Fire Extinguishing Media:
In case of fire, use water spray, foam, dry chemical powder or carbon dioxide.
Special Information:
No special procedures are expected to be necessary for this product.

Section 6. Accidental Release Measures
Spill or leak Procedures:
This product is non-hazardous. Clean up of spills requires no special equipment or procedures.

Section 7. Handling and Storage
Handling:
Use protective equipment as described in Section of this safety data sheet when handling uncontained material. Handle in accordance with good industrial hygiene and safety practices.
Storage:
Warehouse storage should be in accordance with package directions, if any. Product should be kept clean, dry, and original package.
Packing:
Suggested roll and sheet.

Section 8. Exposure Controls/Personal Protection
Ventilation:
No special ventilation systems are required under normal conditions of use.
Respiratory Protection:
For most conditions, no respiratory protection should be needed. However, in dusty atmospheres, use an approved dust respirator.
Skin Protection:
Any glove may be used for protection from mechanical irritation.
Eye Protection:
Use safety glasses.

Section 9. Physical and Chemical Properties
Appearance: Glossy sheet
Melting Point: Not applicable
Boiling Point: Not applicable
Vapor Pressure: Not applicable
Vapor Density: Not applicable
Solubility in Water: Insoluble
pH: Not applicable
Specific Gravity: 1.30-1.40g/cm3
Odor: Odorless
Evaporation Rate: Not applicable
Section 10. Stability and Reactivity

Stability:
Stable under ordinary conditions of use and storage.

Conditions to Avoid:
Avoid heat, sparks, flames, Elevated high temperature and other sources of ignition.

Materials to Avoid:
Isolate from strong oxidizers such as permanganates, chromates peroxides and water.

Incompatibilities:
None known.

Hazardous Decomposition Products:
Carbon Monoxide and carbon dioxide may from when heated to decomposition.

Hazardous Polymerization: Will not occur.

Section 11. Toxicological Information

Acute Toxicity

Inhalation:
Not relevant information found.

Skin:
Not relevant information found.

Eye:
Not relevant information found.

Ingestion:
Not relevant information found.

Chronic Toxicity
Not relevant information found.

Toxicity Data
Not applicable. This product is not toxic.

Subchronic Hazard /Conditions Aggravated

Conditions Aggravated:
None known

Cancer, Reproductive and Other Chronic Hazard:
This product has no carcinogens listed by IARC, NTP, NIOSH, OSHA or ACGIH, as of this date, greater or equal to 0.1%

Section 12. Ecological Information

Environmental Fate:
Not applicable. This product is not toxic.

Environmental Toxicity:
Not applicable. This product is not toxic.

Section 13. Disposal Considerations

Incinerate dispose of in accordance with Federal, state or Local regulations

Section 14. Transport Information

International Information:

Sea (IMO/IMDG)
Shipping Name Not applicable

Air (ICAO/IATA)
Shipping Name Not applicable

European Road / Rail (ADR/RID)
Shipping Name Not applicable

Canadian Transportation of Dangerous Goods
Shipping Name Not applicable
Section 15. Regulatory Information
CERCLA(40 CFR 117, 302):
This product is not regulated.

Sara Title III Section 302 Extremely Hazardous Substances (40 CFR 355):
This product is not regulated.

Sara Title III Section 311/312 Extremely Hazardous Substances (40 CFR 370):
Acute: No  Chronic: No  Fire: No  Pressure: No  Reactivity: No

Sara Title III Section 313 (40 CFR 372):
Not applicable

U.S. Inventory (TSCA):
Not applicable
OSHA Hazard Communication Standard:
Not applicable

EC Inventory (EINECS/ELINCS): No data available.
JAPAN Inventory (MITI): No data available.
AUSTRALIA Inventory (AICS): No data available.
KOREA Inventory (ECL): No data available.
CANADA Inventory (DSL): No data available.
PHILIPPINE Inventory (PICCS): No data available.

Section 16. Other Information
The data in this MSDS was prepared for the ESM-GBF Glossy Backlit Film sheet.