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

Name of product: TROSIFOL BG

Manufacturer/distributor: Kuraray Europe GmbH
Mülheimer Straße 26, D-53840 Troisdorf
Phone 49-2241-2555-0, Fax 49-2241-2555-299

Advice: Dr. Keller
Phone 49-2241-2555-301
Fax 49-2241-2555-399

Emergency advice: Poison center of the current state

Recommended intended purpose(s)
Film for laminated safety glass, encapsulant film for photovoltaic modules

2. HAZARDS IDENTIFICATION

Special hazards information for humans and environment
no

3. COMPOSITION/INFORMATION ON INGREDIENTS

Hazardous ingredients

<table>
<thead>
<tr>
<th>CAS No</th>
<th>EC No</th>
<th>Name</th>
<th>[% weight]</th>
<th>Classification</th>
</tr>
</thead>
<tbody>
<tr>
<td>63148-65-2</td>
<td></td>
<td>Polyvinyl Butyral</td>
<td>ca. 70 - 80</td>
<td></td>
</tr>
<tr>
<td>94-28-0</td>
<td></td>
<td>Triethylen glycol- bis-2-ethyl hexanoat (3G8)</td>
<td>25 - 30</td>
<td></td>
</tr>
<tr>
<td>141-18-4</td>
<td></td>
<td>Bis-(2-butoxyethyl) adipate - DBEA</td>
<td>1 - 5</td>
<td></td>
</tr>
</tbody>
</table>

Additional advice
Polyvinyl butyral film with low admixture of additiv, pigment and stabilizer

4. FIRST AID MEASURES

General information
no

In case of ingestion
If swallowed seek medical advice immediately and show the doctor packing or label.

5. FIRE-FIGHTING MEASURES

Suitable extinguishing media
Dry powder
Carbon dioxide
Water spray jet

Special exposure hazards arising from the substance or preparation itself, combustion products, resulting gases
In the event of fire the following can be released: Carbon monoxide (Co), aldehyde, carbonic acid, alcohol
Special protective equipment for fire-fighters
Use breathing apparatus with independent air supply.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions
no

Environmental precautions
no

Methods for cleaning up
Take up mechanically.

7. HANDLING AND STORAGE

Advice on safe handling
Care for suitable extraction / ventilation at processing machines.

Advice on protection against fire and explosion
The product is combustible.

Further information on storage conditions
Storage: cool

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Additional advice
no

General protective measures
Do not inhale dust/fumes/aerosols.

9. PHYSICAL AND CHEMICAL PROPERTIES

Form
film

Colour
various, depending on coloration

Odour
hardly noticeable

Important health, safety and environmental information

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
<th>Temperature at</th>
<th>Method</th>
<th>Remark</th>
</tr>
</thead>
<tbody>
<tr>
<td>Flash point</td>
<td>300 - 320 °C</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ignition temperature</td>
<td>510 - 520 °C</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Density</td>
<td>1,07 g/cm³</td>
<td>20 °C</td>
<td></td>
<td>insoluble</td>
</tr>
</tbody>
</table>
10. STABILITY AND REACTIVITY

Conditions to avoid
Reactions with oxidising agents.

Hazardous decomposition products
Carbon monoxide
Aldehydes
carboxylic acid

Thermal decomposition

Remark No decomposition if used as directed.

11. TOXICOLOGICAL INFORMATION

Acute toxicity/Irritability/Sensitization

<table>
<thead>
<tr>
<th>Value/Validation</th>
<th>Species</th>
<th>Method</th>
<th>Remark</th>
</tr>
</thead>
<tbody>
<tr>
<td>Irritability skin</td>
<td>no</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Skin sensitization</td>
<td>no</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Additional information
No indications on irritability and sensitization; only hardly noticeable odour.

12. ECOLOGICAL INFORMATION

General regulation
Because of insolubility in water details are impossible to determinate.

13. DISPOSAL CONSIDERATIONS

Waste code No. Name of waste
07 02 13 waste plastic

Recommendations for the product
For recycling consult manufacturer.

Recommendations for packaging
Uncontaminated packaging may be taken for recycling.

14. TRANSPORT INFORMATION

Land and inland navigation transport ADR/RID
No hazardous material as defined by the prescriptions.

Marine transport IMDG
no

Air transport ICAO/IATA-DGR
no
15. REGULATORY INFORMATION

Remarks for classification
The product does not require a hazard warning label in accordance with EC directives/German regulations on dangerous substances.

16. OTHER INFORMATION

Further information
The information contained herein is based on the present state of our knowledge. It characterizes the product with regard to the appropriate safety precautions. It does not represent a guarantee of the properties of the product.