SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Product name
Celstran®

The following SDS applies to products described by combinations of the following trade name, product grade and color code listed below.

Product Grade(s):
PBT-SF10-01, PBT-SF50-01

Color Code:
See Section 16 for list of Color Codes.

REACH Registration Number
This product is a mixture and therefore not directly subject of the registration requirements under REACH.

1.2. Relevant identified uses of the substance or mixture and uses advised against

Identified uses
Plastic processing industry.

1.3. Details of the supplier of the safety data sheet
TICONA GmbH
Am Unisys-Park 1
65843 Sulzbach
Germany

SDS Contact (email of responsible person)
HazCom@Celanese.com

1.4. Emergency telephone number
CHEMTREC: +1 703 527 3887 (Collect calls accepted)
+49 (0)69-305 6418

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification according to Regulation 1272/2008/EC (CLP)
Not a hazardous substance or preparation according to Regulation 1272/2008 (CLP)

Classification and labelling according to Directive 67/548/EWG or 1999/45/EC
Not a hazardous substance or preparation according to EC-directives 67/548/EEC or 1999/45/EC

2.2. Label elements
Not required
2.3 Other Hazards

The mixture does not meet the criteria for PBT / vPvB according to REACH, Annex XIII

SECTION 3: Composition/information on ingredients

Chemical characterization Polybutylene Terephthalate / PBT; Basic CAS-RN: 30965-26-5 and 26062-94-2

3.1. Substances

not applicable

3.2. Mixtures

Details provided in the tables below

<table>
<thead>
<tr>
<th>Components</th>
<th>CAS-No</th>
<th>EC-No.</th>
<th>Identification Number</th>
<th>Percent %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tetrahydrofuran</td>
<td>109-99-9</td>
<td>203-726-8</td>
<td>603-025-00-0</td>
<td>&lt; 0.5</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Components</th>
<th>67/548/EEC</th>
<th>1272/2008/EC (CLP)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tetrahydrofuran</td>
<td>F;R11-19</td>
<td>Flammable liquid - Category 2</td>
</tr>
<tr>
<td></td>
<td>Xi;R36/37</td>
<td>Serious eye damage / eye irritation - Category 2</td>
</tr>
<tr>
<td></td>
<td></td>
<td>STOT SE - Category 3</td>
</tr>
</tbody>
</table>

Hazard Statements

- H225
- H319
- H335
- EUH019

Remarks

For the full text of the R-phrases mentioned in this Section, see Section 16

SECTION 4: First aid measures

4.1. Description of first aid measures

**Inhalation**

Move to fresh air in case of accidental inhalation of vapors. Get medical attention immediately if symptoms occur.

**Skin**

Cool skin rapidly with cold water after contact with molten polymer. Immediate medical attention is required. Do not peel solidified product off the skin.

**Eyes**

Immediately flush eye(s) with plenty of water. Call a physician if irritation persists.

**Ingestion**

If swallowed, do not induce vomiting - seek medical advice.

4.2. Most important symptoms and effects, both acute and delayed

**Main symptoms**

None known

4.3. Indication of any immediate medical attention and special treatment needed

Treat symptomatically

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media

Water, Foam, Dry powder
5.2. Special hazards arising from the substance or mixture
Carbon monoxide
Carbon dioxide (CO2)

5.3. Advice for firefighters

Special protective equipment for fire-fighters
Wear self-contained breathing apparatus and protective suit.

Other Information
Keep people away from and upwind of fire.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures
Do not breathe dust. Avoid dust formation.

6.2. Environmental precautions
No special environmental precautions required.

6.3. Methods and material for containment and cleaning up
Use mechanical handling equipment.

6.4. Reference to other sections
Consult trained personnel. Consider the information for "Personal Protection" in chapter 8 of this Safety Data Sheet.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Hygiene measures
When using, do not eat, drink or smoke Wash hands before breaks and at the end of workday

Advice on safe handling
Provide appropriate exhaust ventilation at machinery and at places where dust can be generated. Avoid dust formation.

Incompatible products
strong bases

Protection - fire and explosion:
Keep away from sources of ignition - No smoking. Potential dust explosion hazard.

7.2. Conditions for safe storage, including any incompatibilities

Material storage
Keep in a dry, cool place.

Incompatible products
strong bases

Technical measures/Storage conditions
No special storage conditions required.

German storage class
11: Combustible solids

7.3. Specific end use(s)
SECTION 8: Exposure controls/personal protection

8.1. Control parameters

<table>
<thead>
<tr>
<th>Components</th>
<th>EU TWA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tetrahydrofuran</td>
<td>150 mg/m³</td>
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</table>

<table>
<thead>
<tr>
<th>Components</th>
<th>EU STEL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tetrahydrofuran</td>
<td>300 mg/m³</td>
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</tbody>
</table>

Tetrahydrofuran
Skin Designation: Can be absorbed through the skin

DNELs
This product is a mixture and therefore not directly subject of the registration requirements under REACH.

PNECs
This product is a mixture and therefore not directly subject of the registration requirements under REACH.

8.2. Exposure controls

- **Personal protective equipment**
- **Hygiene measures**: When using, do not eat, drink or smoke. Wash hands before breaks and at the end of workday.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

- **Appearance**
  - Form: pellets
  - Odor: slight, specific

- **Flash point**: Not applicable
- **Ignition temperature**: >420°C
- **Method**: ASTM D 1929
- **Density**: approx 1.38 - 1.55 g/ml @ 20°C
- **Bulk density**: approx 600 - 900 kg/m³ @ 20°C
- **Water solubility**: insoluble
- **VOC Content(%)**: None

9.2. Other information
The product was not tested for properties not listed on the MSDS.

SECTION 10: Stability and reactivity
SECTION 10: Stability and reactivity

10.1. Reactivity
Stable under normal conditions.

10.2. Chemical Stability
Thermal decomposition can take place above > 270°C.

10.3. Possibility of hazardous reactions
None anticipated.

10.4. Conditions to avoid
Flame. Avoid temperatures above 271 °C / 520 °F.

10.5. Incompatible Materials
strong bases

10.6. Hazardous decomposition products
Aldehydes, ketones, esters, acids, alcohols, butadiene, tetrahydrofuran, toluene, benzoic acid, terephthalic acid

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Toxicological data are not available. When handled appropriately, even after long years of experience with this product, no adverse health effects are known.

SECTION 12: Ecological information

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Product information
Disposal required in compliance with all waste management related state and local regulations. The choice of the appropriate method of disposal depends on the product composition by the time of disposal as well as the local statutes and possibilities for disposal.

Uncleaned empty packaging
Contaminated packaging should be emptied as far as possible and after appropriate cleansing may be taken for reuse.

European Waste Catalogue 150102: Packages from plastics

SECTION 14: Transport information

ADR/RID
Not regulated

ADN
Not regulated

ICAO/IATA
Not restricted
SECTION 14: Transport information

IMDG
Not regulated

SECTION 15: Regulatory information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

Water Hazard Class (WGK):
WGK Class nwg
WGK Reg. No. 766
WGK Source Classification according to VwVwS, Annex 1 or 2

15.2 Chemical Safety Assessment
Chemical Safety Assessment (CSA) is not required

Authorization - Reach Regulation, Title VII
The product does not meet not the criteria

SECTION 16: Other information

Tetrahydrofuran
R11 - Highly flammable
R19 - May form explosive peroxides
R36/37 - Irritating to eyes and respiratory system

Color code(s)
AF3005

Other Information:
• Observe national and local legal requirements
• Except as otherwise noted, all of the trademarks referenced herein are owned by Ticona or its affiliates.

Changes against the previous version are marked by ***

Training advice
Make sure that employees are aware of the hazards / risks as detailed on this Safety Data Sheet. When wearing a breathing apparatus, the need for appropriate training needs to be considered.

Sources of key data used to compile the datasheet
Information contained in this safety data sheet is based on Celanese owned data and public sources deemed valid or acceptable.

Further information
This information is based on our present state of knowledge. It shall describe our products regarding safety requirements and shall not be construed as a guarantee or statement of condition and/or quality.
Safety data sheet
according to regulation (EC) Nr. 1907/2006

Product name: Celstran®
MSDS number: 870310671
Revision Number: 0

Revision Date: Jan.28.2014
Issuing Date: Jan.28.2014

Abbreviation and Acronym:
ADR = Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)
CAS = Chemical Abstracts Service (division of the American Chemical Society)
CLP = Classification, Labelling and Packaging
DNEL = Derived No Effect Level
EINECS = European Inventory of Existing Commercial Chemical Substances
GHS = Globally Harmonized System of Classification and Labelling of Chemicals
IATA = International Air Transport Association
IBC Code = International Code for the Construction and Equipment of Ships Carrying Dangerous Chemicals in Bulk (IMO)
ICAO = International Civil Aviation Organization
IMDG = International Maritime Code for Dangerous Goods
LC50 = Lethal Concentration
LD50 = Lethal Dose

Annex: Exposure Scenario(s)
Development of Exposure Scenario is not required