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

1.1 Product identifier

TroGlitter

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

1.2.1 Relevant uses

Laser engraved article

1.2.2 Uses advised against

None known.

1.3 Details of the supplier of the safety data sheet

Company: Trotec Laser GmbH
Linzer Str. 156
4600 Wels / AUSTRIA
Phone +43 (0)72 42 239-7777
Fax +43 (0) 72 42 239-7380
Homepage www.troteclaser.com
E-mail trotec@troteclaser.com

Address enquiries to
Technical information: trotec@troteclaser.com
Safety Data Sheet: sdb@chemiebuero.de

1.4 Emergency telephone number

Company: +43 (0)72 42 239-7777

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture [REGULATION (EC) No 1272/2008]

not determined

2.2 Label elements

This product is an article and therefore it does not require labelling according to EC directives [REACH/CLP].

2.3 Other hazards

Human health dangers
For thermal decomposition to high temperature are formed toxic, irritating and inflammable smoke.

SECTION 3: Composition / Information on ingredients

Product-type:
The product is an article.

<table>
<thead>
<tr>
<th>Range [%]</th>
<th>Substance</th>
</tr>
</thead>
<tbody>
<tr>
<td>97</td>
<td>Polymethylmethacrylate</td>
</tr>
</tbody>
</table>

CAS: 9011-14-7, EINECS/ELINCS: 618-466-4

Comment on component parts
No dangerous components.
Substances of Very High Concern - SVHC: substances are not contained or are below 0.1%.
SECTION 4: First aid measures

4.1 Description of first aid measures

General information
In the event of symptoms seek medical treatment.

Inhalation
After inhalation of vapous of product which can set be free by thermal processing:
Remove the victim into fresh air and keep him calm.
In the event of symptoms seek medical treatment.

Skin contact
When in contact with the skin, clean with soap and water.
Consult a doctor if skin irritation persists.
In case of burning: After contact with molten product cool quickly with cold water or sterile salt solution and protect with gauze.

Eye contact
Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
If eye irritation persists: Get medical advice/attention.

Ingestion
not applicable

4.2 Most important symptoms and effects, both acute and delayed
No information available.

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

SECTION 5: Fire-fighting measures

5.1 Extinguishing media
Suitable extinguishing media
Carbon dioxide.
Dry powder.
Water spray jet.

Extinguishing media that must not be used
Full water jet.

5.2 Special hazards arising from the substance or mixture
Risk of formation of toxic pyrolysis products.
Carbon monoxide (CO)
Carbon dioxide (CO2)

5.3 Advice for firefighters
Use self-contained breathing apparatus.
Do not inhale explosion and/or combustion gases.
Fire residues and contaminated firefighting water must be disposed of in accordance within the local regulations.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures
Ensure adequate ventilation.
Wear suitable protective equipment. For personal protection see SECTION 8.

6.2 Environmental precautions
Do not discharge into the drains/surface waters/groundwater.

6.3 Methods and material for containment and cleaning up
Take up mechanically.
Dispose of absorbed material in accordance within the regulations.

6.4 Reference to other sections
See SECTION 8+13
**SECTION 7: Handling and storage**

### 7.1 Precautions for safe handling

- During mechanical processing vacuuming at processing machines is necessary.
- During thermal processing vacuuming at processing machines is necessary.
- The normal safety precautions for handling of molten, heated products must be observed.
- Avoid contact with eyes and skin. Use personal protective equipment.
- Dust can form an explosive mixture with air.
- Take precautionary measures against static discharges.
- Wash hands before breaks and after work.
- Do not eat, drink, smoke or take drugs at work.

### 7.2 Conditions for safe storage, including any incompatibilities

- Protect from heat/overheating and from sun.
- Keep in a cool place. Store in a dry place.

### 7.3 Specific end use(s)

See product use, SECTION 1.2

**SECTION 8: Exposure controls / personal protection**

### 8.1 Control parameters

**Ingredients with occupational exposure limits to be monitored (GB)**

- not applicable

### 8.2 Exposure controls

**Additional advice on system design**

- Use suitable discharges or exhaust ventilation if heat treatment is intended.
- Protection adapted to the manipulation of the fused product (danger of burning).
- Pay attention to dust limit value (ACGHI-2011: 10 mg/m³ particle inhalable; 3 mg/m³ particle respirable).
- Measurement methods for taking workplace measurements must meet the performance requirements of DIN EN 482. For example, recommendations are given in the IFA's list of hazardous substances.

**Eye protection**

- In the case of thermal processing:
  - Tightly fitting goggles. (EN 166:2001)
- In the event of dust formation:
  - Tightly fitting goggles. (EN 166:2001)

**Hand protection**

- Gloves (heat-resistant).
  - The details concerned are recommendations. Please contact the glove supplier for further information.

**Skin protection**

- Protective clothing (EN 340)

**Other**

- Avoid contact with eyes and skin.
- Do not inhale dust.
- Do not inhale smokes formed during heat treatment.

**Respiratory protection**

- Respiratory protection in the case of thermal processing.
- Respiratory protection in the case of dust formation.
- Short term: filter apparatus, combination filter A-P2. (DIN EN 14387)

**Thermal hazards**

- yes

**Delimitation and monitoring of the environmental exposition**

- Comply with applicable environmental regulations limiting discharge to air, water and soil.
SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Form</td>
<td>Plastic plates, solid in different forms</td>
</tr>
<tr>
<td>Color</td>
<td>various</td>
</tr>
<tr>
<td>Odor</td>
<td>characteristic</td>
</tr>
<tr>
<td>Odour threshold</td>
<td>No information available.</td>
</tr>
<tr>
<td>pH-value</td>
<td>not applicable</td>
</tr>
<tr>
<td>pH-value [1%]</td>
<td>not applicable</td>
</tr>
<tr>
<td>Boiling point [°C]</td>
<td>not applicable</td>
</tr>
<tr>
<td>Flash point [°C]</td>
<td>not applicable</td>
</tr>
<tr>
<td>Flammability (solid, gas) [°C]</td>
<td>No information available.</td>
</tr>
<tr>
<td>Lower explosion limit</td>
<td>No information available.</td>
</tr>
<tr>
<td>Upper explosion limit</td>
<td>No information available.</td>
</tr>
<tr>
<td>Oxidising properties</td>
<td>no</td>
</tr>
<tr>
<td>Vapour pressure/gas pressure [kPa]</td>
<td>not applicable</td>
</tr>
<tr>
<td>Density [g/ml]</td>
<td>No information available.</td>
</tr>
<tr>
<td>Bulk density [kg/m³]</td>
<td>not applicable</td>
</tr>
<tr>
<td>Solubility in water</td>
<td>insoluble</td>
</tr>
<tr>
<td>Partition coefficient [n-octanol/water]</td>
<td>not applicable</td>
</tr>
<tr>
<td>Viscosity</td>
<td>not applicable</td>
</tr>
<tr>
<td>Relative vapour density determined in air</td>
<td>not applicable</td>
</tr>
<tr>
<td>Evaporation speed</td>
<td>not applicable</td>
</tr>
<tr>
<td>Melting point [°C]</td>
<td>No information available.</td>
</tr>
<tr>
<td>Autoignition temperature [°C]</td>
<td>No information available.</td>
</tr>
<tr>
<td>Decomposition temperature [°C]</td>
<td>No information available.</td>
</tr>
</tbody>
</table>

9.2 Other information

none

SECTION 10: Stability and reactivity

10.1 Reactivity

No dangerous reactions known if used as directed.

10.2 Chemical stability

Stable under normal ambient conditions (ambient temperature).

10.3 Possibility of hazardous reactions

No hazardous reactions known.

10.4 Conditions to avoid

To avoid thermal decomposition, do not overheat.

10.5 Incompatible materials

No information available.
10.6 Hazardous decomposition products

For thermal decomposition to high temperature are formed toxic, irritating and inflammable smoke. In the case of heating following (decomposition) products may occure:

Oxide of carbon (COx)
Methyl methacrylate

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Acute toxicity

<table>
<thead>
<tr>
<th>Toxicity</th>
<th>Based on the available information, the classification criteria are not fulfilled.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Serious eye damage/irritation</td>
<td></td>
</tr>
<tr>
<td>Skin corrosion/irritation</td>
<td></td>
</tr>
<tr>
<td>Respiratory or skin sensitisation</td>
<td></td>
</tr>
<tr>
<td>Specific target organ toxicity — single exposure</td>
<td></td>
</tr>
<tr>
<td>Specific target organ toxicity — repeated exposure</td>
<td></td>
</tr>
<tr>
<td>Mutagenicity</td>
<td></td>
</tr>
<tr>
<td>Reproduction toxicity</td>
<td></td>
</tr>
<tr>
<td>Carcinogenicity</td>
<td></td>
</tr>
<tr>
<td>Aspiration hazard</td>
<td></td>
</tr>
<tr>
<td>General remarks</td>
<td>Risk of mechanical irritation. May cause irritation of eye (vapours/fumes). May cause respiratory tract irritation (vapours/fumes). Toxicological data of complete product are not available.</td>
</tr>
</tbody>
</table>

SECTION 12: Ecological information

12.1 Toxicity

12.2 Persistence and degradability

| Behaviour in environment compartments       | No information available. |
| Behaviour in sewage plant                   | Can be separated out mechanically in purification plants. |
| Biological degradability                    | The product is not biodegradable. |

12.3 Bioaccumulative potential

No information available.

12.4 Mobility in soil

No information available.

12.5 Results of PBT and vPvB assessment

No information available.

12.6 Other adverse effects

The product is insoluble in water. Ecotoxicological data are not available.
SECTION 13: Disposal considerations

13.1 Waste treatment methods

Waste material c It is not possible to determine a waste code for this product in accordance with the European Waste Catalogue (EWC) since it is only possible to classify it according to how it is used by the customer. The waste code is to be determined within the EU in liaison with the waste-disposal operator.

Product
Disposal in an incineration plant in accordance with the regulations of the local authorities.

Waste no. (recommended) 070213

Contaminated packaging
Contaminated packing should be disposed of as product waste.
Uncontaminated packaging may be taken for recycling.

Waste no. (recommended) 150102
150101

SECTION 14: Transport information

14.1 UN number

Transport by land according to ADR/RID not applicable

Inland navigation (ADN) not applicable

Marine transport in accordance with IMDG not applicable

Air transport in accordance with IATA not applicable

14.2 UN proper shipping name

Transport by land according to ADR/RID NO DANGEROUS GOODS

Inland navigation (ADN) NO DANGEROUS GOODS

Marine transport in accordance with IMDG NOT CLASSIFIED AS "DANGEROUS GOODS"

Air transport in accordance with IATA NOT CLASSIFIED AS "DANGEROUS GOODS"

14.3 Transport hazard class(es)

Transport by land according to ADR/RID not applicable

Inland navigation (ADN) not applicable

Marine transport in accordance with IMDG not applicable

Air transport in accordance with IATA not applicable
14.4 Packing group
Transport by land according to ADR/RID: not applicable

Inland navigation (ADN): not applicable

Marine transport in accordance with IMDG: not applicable

Air transport in accordance with IATA: not applicable

14.5 Environmental hazards
Transport by land according to ADR/RID: no

Inland navigation (ADN): no

Marine transport in accordance with IMDG: no

Air transport in accordance with IATA: no

14.6 Special precautions for user
Relevant information under SECTION 6 to 8.

14.7 Transport in bulk according to Annex II of MARPOL and the IBC Code
not applicable

SECTION 15: Regulatory information

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


- Observe employment restrictions for people: none
- VOC (2010/75/CE): 0 %

15.2 Chemical safety assessment
not applicable
SECTION 16: Other information

16.1 Abbreviations and acronyms:

ADR = Accord européen relatif au transport international des marchandises Dangereuses par Route
RID = Règlement concernant le transport international ferroviaire de marchandises dangereuses
ADN = Accord européen relatif au transport international des marchandises dangereuses par voie de navigation intérieure
ATE = acute toxicity estimate
CAS = Chemical Abstracts Service
CLP = Classification, Labelling and Packaging
DMEL = Derived Minimum Effect Level
DNEL = Derived No Effect Level
EC50 = Median effective concentration
ECB = European Chemicals Bureau
EEC = European Economic Community
EINECS = European Inventory of Existing Commercial Chemical Substances
ELINCS = European List of Notified 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
IC50 = Inhibition concentration, 50%
IMDG = International Maritime Code for Dangerous Goods
IUCLID = International Uniform Chemical Information Database
LC50 = Lethal concentration, 50%
LD50 = Median lethal dose
LC0 = lethal concentration, 0%
LOAEL = lowest-observed-adverse-effect level
MARPOL = International Convention for the Prevention of Marine Pollution from Ships
NOAEL = No Observed Adverse Effect Level
NOEC = No Observed Effect Concentration
PBT = Persistent, Bioaccumulative and Toxic substance
PNEC = Predicted No-Effect Concentration
REACH = Registration, Evaluation, Authorisation and Restriction of Chemicals
STP = Sewage Treatment Plant
TLV®/TWA = Threshold limit value – time-weighted average
TLV®STEL = Threshold limit value – short-time exposure limit
VOC = Volatile Organic Compounds
vPvB = very Persistent and very Bioaccumulative

16.2 Other information

Classification procedure

Modified position

none

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