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

1.1 Product identifier

TroLase Reverse

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]

No classification.

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: Risk of mechanical irritation.
Thermal processing can lead to release of irritating gases and vapors.
Heating may cause a fire.

Other hazards: none

SECTION 3: Composition / Information on ingredients

Product-type: The product is an article.

Comment on component parts: The product consists of the following components: carrier material, light blocker, metallized and pigmented lacquer coating.
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
No special measures necessary.
After inhalation of vapours 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.
In case of burning: After contact with molten product cool quickly with cold water or sterile salt solution and protect with gauze.
Get medical advice.

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
foam, dry powder, water spray jet, carbon dioxide

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.
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

Use personal protective equipment.

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.

The product is combustible.
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

Do not store together with acids and alkalies.
Do not store together with oxidizing agents.
Keep in a well-ventilated place.
Keep in a cool place. Store in a dry place.
Protect from heat/overheating and from sun.

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
Ensure adequate ventilation on workstation.
Use suitable discharges or exhaust ventilation if heat treatment is intended.
Protection adapted to the manipulation of the fused product (danger of burning).

Eye protection
Not required under normal conditions.

Hand protection
Suitable protective gloves.

Skin protection
Not required under normal conditions.

Other
Avoid contact with eyes and skin.
Do not inhale vapours.

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

Thermal hazards
See SECTION 7.

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

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

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

Reactions with strong acids and alkalies.
Reactions with oxidizing agents.

10.4 Conditions to avoid

Strong heating.
Avoid temperatures above 300 °C / 572 °F.

10.5 Incompatible materials

See SECTION 10.3.
10.6 Hazardous decomposition products

No dangerous reactions known if used as directed.
In the case of heating following (decomposition) products may occur:
Carbon oxides, Acrylates, Methacrylates, Hazardous organic compounds.
Toxic gases/vapours.

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Acute toxicity

<table>
<thead>
<tr>
<th>Hazard</th>
<th>Classification Criteria</th>
</tr>
</thead>
<tbody>
<tr>
<td>Serious eye damage/irritation</td>
<td>Based on the available information, the classification criteria are not fulfilled.</td>
</tr>
<tr>
<td>Skin corrosion/irritation</td>
<td>Based on the available information, the classification criteria are not fulfilled.</td>
</tr>
<tr>
<td>Respiratory or skin sensitisation</td>
<td>Based on the available information, the classification criteria are not fulfilled.</td>
</tr>
<tr>
<td>Specific target organ toxicity — single exposure</td>
<td>Based on the available information, the classification criteria are not fulfilled.</td>
</tr>
<tr>
<td>Specific target organ toxicity — repeated exposure</td>
<td>Based on the available information, the classification criteria are not fulfilled.</td>
</tr>
<tr>
<td>Mutagenicity</td>
<td>Based on the available information, the classification criteria are not fulfilled.</td>
</tr>
<tr>
<td>Reproduction toxicity</td>
<td>Based on the available information, the classification criteria are not fulfilled.</td>
</tr>
<tr>
<td>Carcinogenicity</td>
<td>Based on the available information, the classification criteria are not fulfilled.</td>
</tr>
<tr>
<td>Aspiration hazard</td>
<td>Based on the available information, the classification criteria are not fulfilled.</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

<table>
<thead>
<tr>
<th>Property</th>
<th>Classification Criteria</th>
</tr>
</thead>
<tbody>
<tr>
<td>Behaviour in environment compartments</td>
<td>No information available.</td>
</tr>
<tr>
<td>Behaviour in sewage plant</td>
<td>Can be separated out mechanically in purification plants.</td>
</tr>
<tr>
<td>Biological degradability</td>
<td>No information available.</td>
</tr>
</tbody>
</table>

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 cannot be determined 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
Trotec Laser GmbH
4600 Wels

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
REACHE = 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

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