

Trotec Produktions- und Vertriebs GmbH
4600 Wels

Date printed 20.08.2015, Revision 20.08.2015

Version 01

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

1.1 Product identifier

TroLase Metallic Plus

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

1.2.1 Relevant uses

Plastics articles
Laser engraved article

1.2.2 Uses advised against

None known.

1.3 Details of the supplier of the safety data sheet

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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

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 by dust particles (eyes, skin).

SECTION 3: Composition / Information on ingredients

Product-type:

The product is an article.

Range [%]	Substance
0,1 - < 0,5	Methyl methacrylate
	CAS: 80-62-6, EINECS/ELINCS: 201-297-1, EU-INDEX: 607-035-00-6
	GHS/CLP: Flam. Liq. 2: H225 - STOT SE 3: H335 - Skin Irrit. 2: H315 - Skin Sens. 1: H317
0,1 - < 0,5	Ethyl acrylate
	CAS: 140-88-5, EINECS/ELINCS: 205-438-8, EU-INDEX: 607-032-00-X
	GHS/CLP: Flam. Liq. 2: H225 - Acute Tox. 4: H302 H312 H332 - Eye Irrit. 2: H319 - STOT SE 3: H335 - Skin Irrit. 2: H315 - Skin Sens. 1: H317

Comment on component parts

The contained dangerous materials are not freely available with foreseeable use.
Substances of Very High Concern - SVHC: substances are not contained or are below 0,1%.
For full text of H-statements: see SECTION 16.

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SECTION 4: First aid measures

4.1 Description of first aid measures

General information	In the event of symptoms seek medical treatment.
Inhalation	not applicable After inhalation of vapours of product which can set free by thermal processing: Remove the victim into fresh air and keep him calm. In the event of symptoms seek medical treatment.
Skin contact	In case of contact with skin wash off with warm 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	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

In the event of fire the following can be released:
Carbon monoxide (CO)
Carbon dioxide (CO₂)
Nitrogen oxides (NO_x).

5.3 Advice for firefighters

Use self-contained breathing apparatus.
Fire residues and contaminated firefighting water must be disposed of in accordance with the local regulations.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Ensure adequate ventilation.
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 with the regulations.

6.4 Reference to other sections

See SECTION 8+13

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SECTION 7: Handling and storage

7.1 Precautions for safe handling

During mechanical processing vacuuming at processing machines is necessary.
Avoid the formation and deposition of dust.
Dust deposits that cannot be avoided must be taken up regularly.
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.
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)

Range [%]	Substance
0,1 - < 0,5	Ethyl acrylate
	CAS: 140-88-5, EINECS/ELINCS: 205-438-8, EU-INDEX: 607-032-00-X
	Long-term exposure: 5 ppm, 21 mg/m ³
	Short-term exposure (15-minute): 10 ppm, 42 mg/m ³
0,1 - < 0,5	Methyl methacrylate
	CAS: 80-62-6, EINECS/ELINCS: 201-297-1, EU-INDEX: 607-035-00-6
	Long-term exposure: 50 ppm, 208 mg/m ³
	Short-term exposure (15-minute): 100 ppm, 416 mg/m ³

Ingredients with occupational exposure limits to be monitored (EU)

Range [%]	Substance / EC LIMIT VALUES
0,1 - < 0,5	Ethyl acrylate
	CAS: 140-88-5, EINECS/ELINCS: 205-438-8, EU-INDEX: 607-032-00-X
	Eight hours: 5 ppm, 21 mg/m ³
	Short-term (15-minute): 10 ppm, 42 mg/m ³
0,1 - < 0,5	Methyl methacrylate
	CAS: 80-62-6, EINECS/ELINCS: 201-297-1, EU-INDEX: 607-035-00-6
	Eight hours: 50 ppm
	Short-term (15-minute): 100 ppm

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8.2 Exposure controls

Additional advice on system design	Ensure adequate ventilation on workstation. To pay attention to dust limit value (ACGIH-2011: 10 mg/m ³ particle inhalable; 3 mg/m ³ particle respirable). 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	In the event of dust formation: safety glasses
Hand protection	Suitable protective gloves.
Skin protection	Not required under normal conditions.
Other	Avoid contact with eyes and skin. Do not inhale dust. Do not inhale vapours. Avoid contact of molten material with skin.
Respiratory protection	Respiratory protection in the case of dust formation. Respiratory protection in the case of thermal processing. Short term: filter apparatus, combination filter A-P2.
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
Color	various
Odor	characteristic
Odour threshold	No information available.
pH-value	not applicable
pH-value [1%]	not applicable
Boiling point [°C]	No information available.
Flash point [°C]	not applicable
Flammability (solid, gas) [°C]	No information available.
Lower explosion limit	not applicable
Upper explosion limit	not applicable
Oxidizing properties	no
Vapour pressure/gas pressure [kPa]	No information available.
Density [g/ml]	1,15 - 1,19 (20 °C / 68,0 °F)
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	No information available.
Evaporation speed	No information available.
Melting point [°C]	No information available.
Autoignition temperature [°C]	393
Decomposition temperature [°C]	No information available.

9.2 Other information

none

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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 alkalis (lyes).
Reactions with acids.
Reactions with strong oxidizing agents.

10.4 Conditions to avoid

Strong heating.

10.5 Incompatible materials

No information available.

10.6 Hazardous decomposition products

In the event of fire: See SECTION 5.
In the case of heating following (decomposition) products may occur:
Acrylic monomers.

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Acute toxicity

Range [%]	Substance
0,1 - < 0,5	Methyl methacrylate, CAS: 80-62-6
	LD50, oral, Rat: 7872 mg/kg (RTECS).
	LD50, dermal, Rabbit: > 5000 mg/kg (RTECS).
	LC50, inhalative, Rat: 7093 ppm/4h (Lit.).
	LC50, inhalative, Rat: 78000 mg/m ³ (4 h) (RTECS).

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

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SECTION 12: Ecological information

12.1 Toxicity

Range [%]	Substance
0,1 - < 0,5	Methyl methacrylate, CAS: 80-62-6
	LC50, (96h), fish: 191 mg/l (IUCLID).
	EC50, (48h), Daphnia magna: 69 mg/l (IUCLID).
	IC50, Pseudokirchneriella subcapitata: 170 mg/l (4 d) (OECD 201).

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 must be disposed of in accordance with the Directive on waste 2008/98/EC as well as other national and local regulations. 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

See SECTION 14.2 in accordance with UN shipping name

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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)

See SECTION 14.2 in accordance with UN shipping name

14.4 Packing group

See SECTION 14.2 in accordance with UN shipping name

14.5 Environmental hazards

See SECTION 14.2 in accordance with UN shipping name

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

EEC-REGULATIONS 1991/689 (2001/118); 1999/13; 2004/42; 648/2004; 1907/2006 (REACH); 1272/2008; 75/324/EEC (2008/47/EC); 453/2010/EC; (EU) 2015/830

TRANSPORT-REGULATIONS DOT-Classification, ADR (2015); IMDG-Code (2015, 37. Amdt.); IATA-DGR (2015).

NATIONAL REGULATIONS (GB): EH40/2005 Workplace exposure limits (Second edition, published December 2011). CHIP 3/ CHIP 4

- Observe employment restrictions for people none

- VOC (1999/13/CE) 0 %

15.2 Chemical safety assessment

not applicable

SECTION 16: Other information

16.1 Hazard statements (SECTION 3)

H319 Causes serious eye irritation.
H302+H312+H332 Harmful if swallowed, in contact with skin or if inhaled.
H317 May cause an allergic skin reaction.
H315 Causes skin irritation.
H335 May cause respiratory irritation.
H225 Highly flammable liquid and vapour.

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16.2 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
 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
 MARPOL = International Convention for the Prevention of Marine Pollution from Ships
 PBT = Persistent, Bioaccumulative and Toxic substance
 PNEC = Predicted No-Effect Concentration
 REACH = Registration, Evaluation, Authorisation and Restriction of Chemicals
 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

16.3 Other information**Classification procedure****Modified position**

none

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