

Steiner GmbH & Co. KG Im Jägersgrund 1+3 57339 Erndtebrück Phone: 0049 2753/6070 Fax: 0049 2753/607153	EU Safety Data Sheet EUPPS	Rev.-No.: 22 January 2019 Revised: 15.01.2019 Page: 1 von 11
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EU Safety Data Sheet, according to Verordnung (EG) Nr. 1907/2006

1 SECTION 1: Designation of the material and the company	
1.1 Product identifier	
Commercial Product Name:	Steinerfilm I
1.2 Relevant identified purposes of use and disadvised uses:	
	No further informations available
Destinated use:	Capacitor Film
Supplier:	Steiner GmbH & CO.KG Im Jägersgrund 1+3 D-57339 Erndtebrück Phone: 0049 2753/607-0 Fax: 0049 02753/607-153
Information department:	Steiner GmbH&Co.KG E-Mail: rhspies@steinerfilm.de

SECTION 2: Possible hazards	
2.1 Classification under regulation (EG) Nr. 1272/2008	
	The product is not classified under CLP-regulation.
2.2 Identification marking under regulation (EG) Nr. 1272/2008	
Hazard notes (pictogram)	not applicable
Signal word	not applicable
Hazard warnings	not applicable
2.3 other risks	the product is compliant to RoHS regulation

SECTION 3: Composition of the material	
Chemical characterisation:	Polyphenylenesulfide, plain (not metallized), vacuum-metallised with Aluminum or Aluminum/Zinc. Acryl coated film contains cross-linked acrylic compounds. Some special products may contain traces of mineral oil, silicon oil or perfluorinated polyether oil.

Steiner GmbH & Co. KG Im Jägersgrund 1+3 57339 Erndtebrück Phone: 0049 2753/6070 Fax: 0049 2753/607153	EU Safety Data Sheet EUPPS	Rev.-No.: 22 January 2019 Revised: 15.01.2019 Page: 2 von 11
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Further details: No hazardous contents.

Polyphenylenesulfide	CAS-No. 25212-74-2
Aluminum	7429-90-5
Zinc	7440-66-6

Hazardous ingredients not applicable
SVHC free of SVHC or < 0,1 %

Possible hazards

No special hazards known.

Perfluorinated polyethers containing material: Fluorine compounds evolved above 290 °C.

**Regulation (EG)Nr. 648/2004 about
 detergents / identification of substances of
 content:** not applicable

additional notes: text of hazard statements, abbreviations etc., see section 16

3. Possible hazards

No special hazards known.

Combustion:
 Ignites when heated higher than 550 °C.

A vapour stimulates your eyes when the PPS- film is heated to melt.

Adverse human health effects:
 Stimulated gas comes out when the PPS- film is heated to melt.

Noncombustible:
 Hard to burn.

Perfluorinated polyethers containing material: Fluorine compounds evolved above 290 °C.

SECTION 4: First Aid Measures

4.1 Description of First Aid Measures

Steiner GmbH & Co. KG Im Jägersgrund 1+3 57339 Erndtebrück Phone: 0049 2753/6070 Fax: 0049 2753/607153	EU Safety Data Sheet EUPPS	Rev.-No.: 22 January 2019 Revised: 15.01.2019 Page: 3 von 11
--	--------------------------------------	---

General informations After breathing: After skin contact: After eye contact: After swallowing: Information for the physician:	no special measures necessary not appl. no skin reactions / no irritations known not appl. see the physician treat symptomatically
4.2 Important acute and delayed occurring symptoms and effects:	no relevant informations available
4.3 Notes on medical emergency aid or special medical treatment:	no relevant informations available
Further information:	Unwinding and / or passage the film over roller may tend to generate electric charge on the film. In case of skin injuries due to melting material, see the physician.
4. First aid	
After breathing: After skin contact: After eye contact: After swallowing: Information for the physician:	not appl. no skin reactions / irritations known not appl. see the physician treat symptomatically
Further information:	Unwinding and/or passage the film over roller may tend to generate electric charge on the film. Molten material can cause severe burns. Do not try to peel molten polymer from the skin. Cool rapidly with water. Obtain immediate medical attention. Unwinding and/or passage the film over roller may tend to generate electric charge on the film. Inhalation of combustion/decombustion gases: Remove the victim from the contamination immediately to fresh air. If you feel unwell, seek medical advice (show the label where possible). Skin contact with molten film: Cool with cold water. Don't remove the solidated polymer hardly. Consult a doctor when you have got burnt. Ingestion: You should vomit promptly. If you swallow a lot of film, you should

Steiner GmbH & Co. KG Im Jägersgrund 1+3 57339 Erndtebrück Phone: 0049 2753/6070 Fax: 0049 2753/607153	EU Safety Data Sheet EUPPS	Rev.-No.: 22 January 2019 Revised: 15.01.2019 Page: 4 von 11
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consult a doctor.

SECTION 5: measures in case of fire	
5.1 Extinguishing media:	
suitable extinguishing media:	Water, foam, powder, carbon dioxide (CO ₂).
5.2 Special hazards caused by the material itself, the products of combustion or resulting gases:	
	In case of fire carbon monoxide, carbon dioxide and gaseous decomposition products arise. If perfluorinated polyether containing material is affected, temperatures of above 290 °C lead to form toxic fumes containing fluorine compounds including C ₃ F ₆ , CF, COF, COF ₂ . The latter two compounds hydrolyze in the presence of water to form HF, CF ₃ COOH and HF, CO ₂ respectively.
5.3 Notes for fire fighting	
Special protective arrangements:	Usual fire fighting protecting measures. Keep personnel removed and upwind of fire. Wear self-contained breathing apparatus. Wear full protective equipment.
Further informations:	In case of heating the material to temperatures of appr. 280 °C to 300 °C the material starts melting. Do not breath in combustion gases.

Section 6: Measures in case of unintentional releasing	
6.1 Measures of personal precaution:	not appl.
6.2 Measures for environmental protection:	not appl.
6.3 Process for cleaning:	Take up mechanically and dispose in compliance with the federal, state and local regulations or give to a recycling plant.
6.4 References to other sections:	No hazardous compounds are released. Informations for safe handling are given in section 7.

Steiner GmbH & Co. KG Im Jägersgrund 1+3 57339 Erndtebrück Phone: 0049 2753/6070 Fax: 0049 2753/607153	EU Safety Data Sheet EUPPS	Rev.-No.: 22 January 2019 Revised: 15.01.2019 Page: 5 von 11
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Informations for personal protective equipment are given in section 8.
 Disposal informations, see section 13.

Section 7. Handling and storing

Indications for safe handling: No special indications necessary.
Indications for fire and explosion protection: No special measures necessary.
Requirements for warehouses and containers: No special conditions required.
Indications for storing together with other materials: Avoid the contact with oxidizing agents.
Additional indications to the storing conditions: Store at room temperature in the original packing.
 Keep away moisture, heat and sunlight.

Section 8: Limiting and monitoring of explosion/personal protective equipment

Additional indications for technical installations lay-out: no further informations, see section 7.

8.1 Components with working place related controlled limiting values:
 To serve as a basis for the creation valid lists are used.
 Contains no substances with workplace limits.

8.2 Limiting and monitoring of explosion/personal protective equipment

Breathing equipment: No special protective equipment necessary.
Hand safety guard: No special protective equipment necessary.
Eye protection: No special protective equipment necessary.
Body protection: No special protective equipment necessary.
Hand safety guard: No special protective equipment necessary.
Other protection measures: No special protective equipment necessary.

Section 9: Physical and chemical properties

9.1 Informations to basic physical and chemical properties

Steiner GmbH & Co. KG Im Jägersgrund 1+3 57339 Erndtebrück Phone: 0049 2753/6070 Fax: 0049 2753/607153	EU Safety Data Sheet EUPPS	Rev.-No.: 22 January 2019 Revised: 15.01.2019 Page: 6 von 11
--	--------------------------------------	---

General informations:	
Appearance:	solid
Colour:	metallic, resp. clear
Odour:	scentless
Odour threshold:	not determined
Change in Physical State:	Melting point ca. 280 °C to 300 °C
Initial melt temperature:	-
Density:	1,35 [g/cm ³] at 23 °C
Vapour pressure:	not appl.
Viscosity:	not appl.
Evaporation rate:	not. appl.
Solubility in water:	negligible
pH-Value:	not appl.
Flash point:	not appl.
Ignition temperature:	>550 °C
Self-igniting:	the material is not self-igniting
Explosion limits:	not appl.
Thermal decomposition:	>290 °C Hazardous decomposition products: In case of fire irritating and highly toxic gases may be generated by thermal decomposition or combustion.
Solids content:	100 %
9.2 further informations	Flammability: self-extinguishing

Section 10: Stability and reactivity

Steiner GmbH & Co. KG Im Jägersgrund 1+3 57339 Erndtebrück Phone: 0049 2753/6070 Fax: 0049 2753/607153	EU Safety Data Sheet EUPPS	Rev.-No.: 22 January 2019 Revised: 15.01.2019 Page: 7 von 11
--	--------------------------------------	---

10.1 Reactivity: 10.2 Chemical Reactivity: Thermal decomposition/ conditions to avoid: 10.3 Possibility of dangerous reactions: 10.4 Conditions to avoid: 10.5 Intolerable materials: 10.6 Dangerous decomposition products:	 no decomposition when used as intended Hazardous gases/vapors produced during incomplete combustion: a complex range of volatile organic compounds including trans-esterification, combustion, reaction products and lower levels of hydrocyanic acid will be formed in addition to carbon dioxide, carbon monoxide and water. In case of perfluorinated polyether containing material, temperatures of above 290 °C lead to form toxic fumes containing fluorine compounds including C ₃ F ₆ ,CF, COF, COF ₂ . The latter two compounds hydrolize in the presence of water to form HF, CF ₃ COOH and HF, CO ₂ respectively. humidity; no further informations known. metallised film: water/acids/lye. plain film: strong oxidizing agents; water. not known, when material handled as destined
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Section 11: Toxicological informations	
11.1 Acute toxicity	
Primary irritation:	
Etching/irritation to skin:	on the basis of the available data the classification criteria are not fulfilled.
Severe eye damage/eye irritation:	not stimulative at solid (film) state. A vapor stimulates your eyes when the film is heated to melt. On the basis of the available data the classification criteria are not fulfilled.

Steiner GmbH & Co. KG Im Jägersgrund 1+3 57339 Erndtebrück Phone: 0049 2753/6070 Fax: 0049 2753/607153	EU Safety Data Sheet EUPPS	Rev.-No.: 22 January 2019 Revised: 15.01.2019 Page: 8 von 11
--	--------------------------------------	---

Sensibilisation of respiratory tract/skin:	on the basis of the available data the classification criteria are not fulfilled.
CMR-effect (cancerogenic, mutagenic and toxicity to reproduction):	on the basis of the available data the classification criteria are not fulfilled.
Germ cell mutagenicity:	on the basis of the available data the classification criteria are not fulfilled.
Carcinogenicity:	on the basis of the available data the classification criteria are not fulfilled.
Reproductive toxicity:	on the basis of the available data the classification criteria are not fulfilled.
Specific target toxicity in case of single exposure:	on the basis of the available data the classification criteria are not fulfilled.
Specific target toxicity on repeated exposure:	on the basis of the available data the classification criteria are not fulfilled.
Aspiration hazard:	on the basis of the available data the classification criteria are not fulfilled.

Section 12: Environmental informations	
12.1 Toxicity:	
Aquatic toxicity:	no further informations available.
12.2 Persistence and degradability:	The product is insoluble in water. It is mechanically separable in a clarification plant.
12.3 Bioaccumulationpotential:	no further informations available.
12.4 Mobility in the ground:	no further informations available.
12.4 Further ökological notes:	
According to the recipe the material contains the following heavy metals and compounds named in the EG-regulations 2006/11/EG:	Free of heavy metals (Pb, Cd, Hg, Cr VI)
General notes:	

Steiner GmbH & Co. KG Im Jägersgrund 1+3 57339 Erndtebrück Phone: 0049 2753/6070 Fax: 0049 2753/607153	EU Safety Data Sheet EUPPS	Rev.-No.: 22 January 2019 Revised: 15.01.2019 Page: 9 von 11
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12.5 Results of PBT- and vPcB-evaluation:	
PBT:	not applicable
vPvB:	not applicable
12.6 Other adverse effects:	no further informations available.
Further indications:	Do not release the material into the environment.

Section 13: Informations for waste management	
13.1 Waste treatment methods:	
Recommendations:	Can be recycled or may be disposed in compliance with the federal, state and local regulations.
Abfallverzeichnisverordnung (AVV)	
Informations to European Waste Key Number:	
Unpurified packaging:	
Recommendations:	Can be recycled or may be disposed in compliance with the federal, state and local regulations.

Section 14: Transport informations	
14.1 UN-number	
ADN / ADR / IMDG / IATA:	not appl.
14.2 Proper UN-shipping name:	
ADR, AND, IMDG, IATA:	not appl.
14.3 Transport Hazard Classes:	
ADR, AND, IMDG, IATA	
Class:	not appl.
14.4 Packaging group:	
ADR, IMDG, IATA	not appl.
14.5 Danger to the environment:	
Marine pollutant:	not appl.
14.6 Special precautions for the user:	not appl.
14.7 Transport in bulk according to Annex II to the MARPOL-Conventions and according to IBC-Code:	
Transportation/Other Informations:	No dangerous good in the sense of transport regulations.
UN "Model Regulation":	-

Section 15: Legal regulations	
15.1 Regulations to safety, health- and environmental- protection / specific legislations for the material or the mixture	
Directive 2012/18 EU	
Hazardous substances listed by name	

<p align="center">Steiner GmbH & Co. KG Im Jägersgrund 1+3 57339 Erndtebrück Phone: 0049 2753/6070 Fax: 0049 2753/607153</p>	<p align="center">EU Safety Data Sheet EUPPS</p>	<p align="center">Rev.-No.: 22 January 2019 Revised: 15.01.2019 Page: 10 von 11</p>
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Annex I

None of the substances contained.

Section 16: More informations

Die Angaben stützen sich auf den heutigen Stand unserer Kenntnisse, sie stellen jedoch keine Zusicherung von Produkteigenschaften dar und begründen kein vertragliches Rechtsverhältnis. Die jeweils geltenden Rechtsvorschriften sind zu beachten.

Dieses Produkt (diese Produktgruppe) ist kein Gefahrstoff in Sinne der aktuell gültigen GefStoffV. Dieses Sicherheitsdatenblatt unterliegt damit nicht dem automatischen Änderungsdienst nach GefStoffV § 6 Abs. 1.

Statements are made due to latest state of our knowledge. They shall describe our products with regards to safety requirements, thus do not mean a guarantee for certain characteristics.

The applicable legal regulations must be observed.

You are advised to make your own tests to determinate the safety and suitability of each such product or combination for your own purposes.

This product (this product group) is not a hazardous substance in the sense of the currently valid GefStoffV.

This safety data sheet is therefore not subject to the automatic alteration service according to GefStoffV § 6 Abs. 1.

Data sheet issuing department: Steiner GmbH&Co.KG/Qualitätsmanagement/Umwelt
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Abbreviations and acronyms:

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)

IMDG: International Maritime Code for Dangerous Goods

IATA: International Air Transport Association

GHS: Globally Harmonized System of Classification and Labelling of Chemicals

EINECS: European Inventory of Existing Commercial Chemical Substances

ELINCS: European List of Notified Chemical Substances

CAS: Chemical Abstracts Service (division of the American Chemical Society)

Responsible for the safety data sheet:

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EU Safety Data Sheet
EUPPS

Rev.-No.: 22
January 2019
Revised: 15.01.2019
Page: 11 von 11