



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

### 1.1 Product identifier

**Solar Plax**  
**Article number: MRF.75, MRF.220**

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

#### 1.2.1 Relevant uses

Repair  
foil

#### 1.2.2 Uses advised against

None known.

### 1.3 Details of the supplier of the safety data sheet

**Company** Marston Domsel GmbH  
Bergheimer Str. 15  
53909 Zülpich / GERMANY  
Phone +49 (0) 22 52 94 15 0  
Fax +49 (0) 22 52 17 44  
Homepage [www.marston-domsel.de](http://www.marston-domsel.de)  
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#### Address enquiries to

**Technical information** [info@marston-domsel.de](mailto:info@marston-domsel.de)

**Safety Data Sheet** [sdb@chemiebuero.de](mailto:sdb@chemiebuero.de)

### 1.4 Emergency telephone number

## SECTION 2: Hazards identification

### 2.1 Classification of the substance or mixture

No classification.

### 2.2 Label elements

The product does not require a hazard warning label in accordance with GHS/CLP-directives.

### 2.3 Other hazards

**Human health dangers** Persons already sensitised to styrene may develop allergic reactions when using this product.

**Other hazards** Further hazards were not determined with the current level of knowledge.

## SECTION 3: Composition / Information on ingredients

### Product-type:

The product is a mixture.

Range [%]	Substance
< 1	Styrene
	CAS: 100-42-5, EINECS/ELINCS: 202-851-5, EU-INDEX: 601-026-00-0
	GHS/CLP: Flam. Liq. 3: H226 - Repr. 2: H361d - Acute Tox. 4: H332 - Skin Irrit. 2: H315 - Eye Irrit. 2: H319 - STOT RE 1: H372

### Comment on component parts

Substances of Very High Concern - SVHC: substances are not contained or are below 0.1%.  
For full text of H-statements: see SECTION 16.



#### SECTION 4: First aid measures

##### 4.1 Description of first aid measures

<b>General information</b>	Take off contaminated clothing and wash before reuse.
<b>Inhalation</b>	Ensure supply of fresh air. In the event of symptoms seek medical treatment.
<b>Skin contact</b>	When in contact with the skin, clean with soap and water. Consult a doctor if skin irritation persists.
<b>Eye contact</b>	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.
<b>Ingestion</b>	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

<b>Suitable extinguishing media</b>	foam, dry powder, water spray jet, carbon dioxide
<b>Extinguishing media that must not be used</b>	Full water jet

##### 5.2 Special hazards arising from the substance or mixture

Risk of formation of toxic pyrolysis products.  
Carbon dioxide (CO<sub>2</sub>)

##### 5.3 Advice for firefighters

Do not inhale explosion and/or combustion gases.  
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.  
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 with the regulations.

##### 6.4 Reference to other sections

See SECTION 8+13



## SECTION 7: Handling and storage

### 7.1 Precautions for safe handling

Use only in well-ventilated areas.  
 Avoid contact with eyes and skin. Use personal protective equipment.  
 Keep away from open flames, hot surfaces and sources of ignition.  
 Do not smoke.  
 Do not eat, drink, smoke or take drugs at work.  
 Wash hands before breaks and after work.  
 Use barrier skin cream.

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

Keep only in original container.  
 Do not store together with oxidizing agents.  
 Keep container tightly closed.  
 Keep container in a well-ventilated place.  
 Protect from heat/overheating.  
 Recommended storage temperature: <25 °C.  
 Protect from light.  
 Protect 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)

Substance
Styrene
CAS: 100-42-5, EINECS/ELINCS: 202-851-5, EU-INDEX: 601-026-00-0
Long-term exposure: 100 ppm, 430 mg/m <sup>3</sup>
Short-term exposure (15-minute): 250 ppm, 1080 mg/m <sup>3</sup>

### 8.2 Exposure controls

<b>Additional advice on system design</b>	Ensure adequate ventilation on workstation. 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.
<b>Eye protection</b>	safety glasses (EN 166:2001)
<b>Hand protection</b>	The details concerned are recommendations. Please contact the glove supplier for further information. Butyl rubber, >120 min (EN 374-1/-2/-3).
<b>Skin protection</b>	Not required under normal conditions.
<b>Other</b>	Do not inhale vapours. Avoid contact with eyes and skin. Personal protective equipment should be selected specifically for the working place, depending on concentration and quantity handled. The resistance of this equipment to chemicals should be ascertained with the respective supplier.
<b>Respiratory protection</b>	Not required under normal conditions. If ventilation is insufficient, wear respiratory protection. Short term: filter apparatus, filter A. (DIN EN 14387)
<b>Thermal hazards</b>	none
<b>Delimitation and monitoring of the environmental exposition</b>	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	sweetish
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]	448
Lower explosion limit	No information available.
Upper explosion limit	No information available.
Oxidising properties	no
Vapour pressure/gas pressure [kPa]	No information available.
Density [g/ml]	No information available.
Bulk density [kg/m <sup>3</sup> ]	not applicable
Solubility in water	immiscible
Partition coefficient [n-octanol/water]	No information available.
Viscosity	not applicable
Relative vapour density determined in air	No information available.
Evaporation speed	0.00
Melting point [°C]	No information available.
Autoignition temperature [°C]	not self-igniting
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 oxidizing agents.

### 10.4 Conditions to avoid

Warming  
Ultraviolet

### 10.5 Incompatible materials

No information available.

### 10.6 Hazardous decomposition products

In the event of fire: See SECTION 5.



## SECTION 11: Toxicological information

### 11.1 Information on toxicological effects

#### Acute toxicity

Substance
Styrene, CAS: 100-42-5
LD50, oral, Rat: 2650 mg/kg.
LC50, inhalative, Rat: 12 mg/l (4h).

<b>Serious eye damage/irritation</b>	Based on the available information, the classification criteria are not fulfilled.
<b>Skin corrosion/irritation</b>	Based on the available information, the classification criteria are not fulfilled.
<b>Respiratory or skin sensitisation</b>	Based on the available information, the classification criteria are not fulfilled.
<b>Specific target organ toxicity — single exposure</b>	Based on the available information, the classification criteria are not fulfilled.
<b>Specific target organ toxicity — repeated exposure</b>	Based on the available information, the classification criteria are not fulfilled.
<b>Mutagenicity</b>	Based on the available information, the classification criteria are not fulfilled.
<b>Reproduction toxicity</b>	Based on the available information, the classification criteria are not fulfilled.
<b>Carcinogenicity</b>	Based on the available information, the classification criteria are not fulfilled.
<b>Aspiration hazard</b>	Based on the available information, the classification criteria are not fulfilled.
<b>General remarks</b>	

Toxicological data of complete product are not available.

## SECTION 12: Ecological information

### 12.1 Toxicity

Substance
Styrene, CAS: 100-42-5
LC50, (96h), fish: 32 mg/l.
EC50, (48h), Daphnia magna: 4,7 mg/l.
IC50, (96h), Algae: 0,72 mg/l.

### 12.2 Persistence and degradability

<b>Behaviour in environment compartments</b>	No information available.
<b>Behaviour in sewage plant</b>	Can be separated out mechanically in purification plants.
<b>Biological degradability</b>	No information available.

### 12.3 Bioaccumulative potential

No information available.

### 12.4 Mobility in soil

No information available.

### 12.5 Results of PBT and vPvB assessment

Based on all available information not to be classified as PBT or vPvB respectively.

### 12.6 Other adverse effects

The product is insoluble in water.  
Ecological data of complete product are not available.  
Do not discharge product unmonitored into the environment or into the drainage.



### 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

Coordinate disposal with the authorities if necessary.

Waste no. (recommended) 070213

##### Contaminated packaging

Uncontaminated packaging may be taken for recycling.  
Packaging that cannot be cleaned should be disposed of as for product.

Waste no. (recommended) 150102

### 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

**EEC-REGULATIONS** 1991/689 (2001/118); 2010/75; 2004/42; 648/2004; 1907/2006 (REACH); 1272/2008; 75/324/EEC (2008/47/EC); (EU) 2015/830; (EU) 2016/131; (EU) 517/2014

**TRANSPORT-REGULATIONS** DOT-Classification, ADR (2017); IMDG-Code (2017, 38. Amdt.); IATA-DGR (2017).

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

- Observe employment restrictions for people none

- VOC (2010/75/CE) No information available.

#### 15.2 Chemical safety assessment

Chemical safety assessments for substances in this mixture were not carried out.

### SECTION 16: Other information

#### 16.1 Hazard statements (SECTION 03)

H372 Causes damage to the hearing organs through prolonged or repeated exposure  
H319 Causes serious eye irritation.  
H315 Causes skin irritation.  
H332 Harmful if inhaled.  
H361d Suspected of damaging the unborn child.  
H226 Flammable liquid and vapour.



## 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  
 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

## 16.3 Other information

### Classification procedure

### Modified position

SECTION 16 been added: GENERAL REVIEW

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