

**Safety Data Sheet**

according to UK REACH Regulation

**TIP TOP SOLVENT F12**

Revision date: 20.12.2023

Product code: 00359-1060

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**SECTION 1: Identification of the substance/mixture and of the company/undertaking****1.1. Product identifier**

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**Art.-No.**

590 0095

**1.2. Relevant identified uses of the substance or mixture and uses advised against****Use of the substance/mixture**

Processing agent

**1.3. Details of the supplier of the safety data sheet****Manufacturer**

Company name: TIP TOP Oberflächenschutz Elbe GmbH  
Street: Heuweg 4  
Place: D-06886 Wittenberg  
Telephone: +49(0)3491/635-50  
Responsible Department: Responsible for the safety data sheet: sds@gbk-ingelheim.de

Telefax:

**Supplier**

Company name: REMA TIP TOP INDUSTRY UK LTD  
Street: Plumtree Industrial Estate, Harworth  
Place: Doncaster, DN11 8EW, South Yorkshire  
Telephone: +44 (0)1302 711233  
Internet: www.rema-tiptop.co.uk

**1.4. Emergency telephone number:**

INTERNATIONAL: +49 - (0) 6132 - 84463, GBK GmbH (24h - 7d/w - 365d/a)  
In England and Wales: NHS 111 In Scotland: NHS 24 - dial 111

**SECTION 2: Hazards identification****2.1. Classification of the substance or mixture****GB CLP Regulation**

Flam. Liq. 3; H226  
Acute Tox. 4; H332  
Asp. Tox. 1; H304  
Skin Irrit. 2; H315  
Eye Irrit. 2; H319  
Repr. 2; H361d  
STOT SE 3; H335  
STOT RE 1; H372  
Aquatic Chronic 3; H412

Full text of hazard statements: see SECTION 16.

**2.2. Label elements****GB CLP Regulation****Hazard components for labelling**

Styrene

**Signal word:** Danger**Pictograms:**

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**Hazard statements**

H226	Flammable liquid and vapour.
H304	May be fatal if swallowed and enters airways.
H315	Causes skin irritation.
H319	Causes serious eye irritation.
H332	Harmful if inhaled.
H335	May cause respiratory irritation.
H361d	Suspected of damaging the unborn child.
H372	Causes damage to organs through prolonged or repeated exposure.
H412	Harmful to aquatic life with long lasting effects.

**Precautionary statements**

P202	Do not handle until all safety precautions have been read and understood.
P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P260	Do not breathe vapour.
P280	Wear protective gloves/protective clothing/eye protection/face protection.
P301+P310	IF SWALLOWED: Immediately call a POISON CENTER/doctor.
P331	Do NOT induce vomiting.
P303+P361+P353	IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower.
P304+P340	IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P405	Store locked up.
P273	Avoid release to the environment.

**2.3. Other hazards**

According to Regulation (EC) No 1907/2006 (REACH) none of the substances, contained in this product are a PBT / vPvB substance.

The mixture does not contain substance(s) included in the list established in accordance with Article 59(1) of REACH for having endocrine disrupting properties, or is not identified as having endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605

Vapours may form explosive mixture with air.

**SECTION 3: Composition/information on ingredients****3.2. Mixtures****Chemical characterization**

Preparation with styrene

**Hazardous components**

CAS No	Chemical name			Quantity
	EC No	Index No	REACH No	
	GHS Classification			
100-42-5	Styrene			> 90 %
	202-851-5	601-026-00-0	01-2119457861-32	
	Flam. Liq. 3, Repr. 2, Acute Tox. 4, Skin Irrit. 2, Eye Irrit. 2, STOT SE 3, STOT RE 1, Asp. Tox. 1, Aquatic Chronic 3; H226 H361d H332 H315 H319 H335 H372 H304 H412			

Full text of H and EUH statements: see section 16.

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**Specific Conc. Limits, M-factors and ATE**

CAS No	EC No	Chemical name	Quantity
		Specific Conc. Limits, M-factors and ATE	
100-42-5	202-851-5	Styrene	> 90 %
		inhalation: LC50 = 11,8 mg/l (vapours); oral: LD50 = 2650 mg/kg	

**SECTION 4: First aid measures****4.1. Description of first aid measures****General information**

Remove contaminated soaked clothing immediately.  
In the event of persistent symptoms receive medical treatment.  
Take away from danger area and lay down affected person.

**After inhalation**

Move to fresh air in case of accidental inhalation of vapours.  
Seek medical treatment immediately.

**After contact with skin**

Wash off immediately with soap and plenty of water.  
Treat subsequently with skin cream.  
Consult a doctor if skin irritation persists.

**After contact with eyes**

Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes.  
Consult (eye) doctor immediately.

**After ingestion**

Do not induce vomiting.  
Summon a doctor immediately.  
Rinse out mouth and give plenty of water to drink.  
Never give anything by mouth to an unconscious person.  
Induce vomiting only upon the advice of a physician.

**4.2. Most important symptoms and effects, both acute and delayed**

May be fatal if swallowed and enters airways.  
Harmful by inhalation.  
Causes skin irritation.  
Causes serious eye irritation.  
May cause respiratory irritation.  
Causes damage to organs through prolonged or repeated exposure. (the ear)  
Suspected of damaging the unborn child.

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

Treat symptoms.

**SECTION 5: Firefighting measures****5.1. Extinguishing media****Suitable extinguishing media**

Alcohol-resistant foam, dry chemical, carbon dioxide (CO<sub>2</sub>), water-spray.

**Unsuitable extinguishing media**

Full water jet

**5.2. Special hazards arising from the substance or mixture**

Fire may produce:  
carbon monoxide and carbon dioxide

**5.3. Advice for firefighters**

Wear self-contained breathing apparatus and protective suit.



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#### Additional information

- Vapours are heavier than air and spread along ground.
- The vapour/air mixture is explosive, even in empty, uncleaned receptacles.
- Cool containers at risk with water spray jet.
- Collect contaminated firefighting water separately, must not be discharged into the drains.
- 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

##### General advice

- Ensure adequate ventilation.
- Remove persons to safety.
- Keep away sources of ignition.

##### For non-emergency personnel

- Do not breathe vapours.
- Avoid contact with skin, eyes and clothing.

##### For emergency responders

- In case of vapour formation use respirator.
- Use personal protective clothing.

#### 6.2. Environmental precautions

- Do not discharge into the drains/surface waters/ground water.

#### 6.3. Methods and material for containment and cleaning up

##### For containment

- Prevent spread over a wide area (e.g. by containment or oil barriers).

##### For cleaning up

- Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder).
- Shovel into suitable container for disposal.

#### 6.4. Reference to other sections

- Observe protective instructions (see Sections 7 and 8).
- Information for disposal see section 13.

### SECTION 7: Handling and storage

#### 7.1. Precautions for safe handling

##### Advice on safe handling

- Keep container tightly closed.
- Vapours are heavier than air and spread along ground.
- Use only in thoroughly ventilated areas.
- Provide suitable extraction at the processing machines.

##### Advice on protection against fire and explosion

- Keep away from heat and sources of ignition.
- Do not smoke.
- Take precautionary measures against static discharges.
- Use only explosion-proof equipment.

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

##### Requirements for storage rooms and vessels

- Keep container tightly closed in a dry, cool and well-ventilated place.
- Pay attention to anti-explosion rules.
- Recommended storage temperature: < 40°C

##### Hints on joint storage

- Incompatible with oxidizing agents.

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**Further information on storage conditions**

Keep away from food, drink and animal feeding stuffs.

**7.3. Specific end use(s)**

Processing agent

**SECTION 8: Exposure controls/personal protection****8.1. Control parameters****Exposure limits (EH40)**

CAS No	Substance	ppm	mg/m <sup>3</sup>	fibres/ml	Category	Origin
100-42-5	Styrene	100	430		TWA (8 h)	WEL
		250	1080		STEL (15 min)	WEL

**8.2. Exposure controls****Appropriate engineering controls**

Ensure adequate ventilation, especially in confined areas.  
Pay attention to explosion protection guidelines.

**Protective and hygiene measures**

Do not inhale vapours.  
Wash hands before breaks and immediately after handling the product.  
When using do not eat, drink or smoke.  
Treat subsequently with skin cream.  
Remove and wash contaminated clothes before re-use.

**Eye/face protection**

Tightly fitting goggles (EN 166).  
Eye wash bottle with pure water (EN 15154).

**Hand protection**

Chemical protective gloves made of nitrile, nitrile/cotton, butyl or neoprene, with a minimum thickness of 0.7 mm, permeation time of approx. 480 minutes.  
This recommendation refers exclusively to the chemical compatibility and the lab test conforming to EN 374 carried out under lab conditions.  
Requirements can vary as a function of the use. Therefore it is necessary to adhere additionally to the recommendations given by the manufacturer of protective gloves.  
Pls. find examples in the protective gloves database under: <http://bestglove.com/site/chemrest/>

**Skin protection**

Long sleeved clothing (DIN EN ISO 6530)  
Solvent-resistant apron (EN 467).

**Respiratory protection**

In case of insufficient ventilation wear suitable respiratory equipment (gas filter type A) (EN 14387).

**SECTION 9: Physical and chemical properties****9.1. Information on basic physical and chemical properties**

Physical state: Liquid  
Colour: Colourless - yellowish  
Odour: Sweetish

**Test method**

pH-Value: n.a.

**Changes in the physical state**

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Melting point/freezing point:	- 31 °C
Boiling point or initial boiling point and boiling range:	145 °C
Sublimation point:	n.a.
Softening point:	n.d.
Flash point:	31 °C
Sustaining combustion:	Sustaining combustion

**Flammability**

Solid/liquid:	n.a.
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**Explosive properties**

The product is considered non-explosive; nevertheless explosive vapour/air mixture can be generated.

Lower explosion limits:	0,9 vol. %
Upper explosion limits:	6,8 vol. %
Auto-ignition temperature:	490 °C

**Self-ignition temperature**

Solid:	n.a.
Gas:	n.a.

Decomposition temperature:	n.d.
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**Oxidizing properties**

Not oxidising.

Vapour pressure: (at 20 °C)	6,67 hPa
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Density (at 20 °C):	0,91 g/cm <sup>3</sup>
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Bulk density:	n.a.
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Water solubility: (at 25 °C)	0,32 g/L Immiscible
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**Solubility in other solvents**

n.d.

Partition coefficient n-octanol/water:	Log Pow: 2,96
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Viscosity / dynamic: (at 25 °C)	0,696 mPa·s
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Viscosity / kinematic: (at 25 °C)	0,77 mm <sup>2</sup> /s
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Flow time:	n.d.
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Relative vapour density:	3,6
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Evaporation rate:	n.d.
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Solvent separation test:	0 %
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Solvent content:	100 %
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**9.2. Other information**

No data available

**SECTION 10: Stability and reactivity****10.1. Reactivity**

No decomposition if stored and applied as directed.

**10.2. Chemical stability**

Risk of polymerisation

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**10.3. Possibility of hazardous reactions**

Reaction with:  
Strong acids and strong bases  
Strong oxidizing agents  
Peroxides

**10.4. Conditions to avoid**

To avoid thermal decomposition, do not overheat.  
Avoid temperatures above 30°C.  
Vapour/air mixtures are explosive at intensive warming.  
Heating can release vapours which can be ignited.

**10.5. Incompatible materials**

Strong acids and strong bases  
Strong oxidizing agents  
Peroxides

**10.6. Hazardous decomposition products**

Irritant/corrosive, flammable as well as toxic distillation gases (carbonization gases).  
Carbon monoxide and carbon dioxide

**SECTION 11: Toxicological information****11.1. Information on hazard classes as defined in GB CLP Regulation****Acute toxicity**

Harmful if inhaled.  
No toxicological data available.  
Styrene  
LD50/oral/rat: 5000 mg/kg  
LD50/dermal/rat: > 2000 mg/kg  
LC50/inhalation/rat: 11,8 mg/l/4h

**ATEmix calculated**

ATE (oral) > 2000 mg/kg; ATE (dermal) > 2000 mg/kg; ATE (inhalation vapour) 13,33 mg/l; ATE (inhalation dust/mist) 1,667 mg/l

**Irritation and corrosivity**

Causes skin irritation.  
Causes serious eye irritation.

**Sensitising effects**

Based on available data, the classification criteria are not met.

**Carcinogenic/mutagenic/toxic effects for reproduction**

Suspected of damaging the unborn child. (Styrene)  
Germ cell mutagenicity: Based on available data, the classification criteria are not met.  
Carcinogenicity: Based on available data, the classification criteria are not met.

**STOT-single exposure**

May cause respiratory irritation. (Styrene)

**STOT-repeated exposure**

Causes damage to organs through prolonged or repeated exposure. (Styrene)

**Aspiration hazard**

May be fatal if swallowed and enters airways.

**Additional information on tests**

Classification in compliance with the assessment procedure specified in the Regulation (EC) no 1272/2008.

**11.2. Information on other hazards****Endocrine disrupting properties**

No data available

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**Other information**

Inhalation of high vapour concentrations may cause symptoms like headache, dizziness, tiredness, nausea and vomiting.

Repeated or prolonged exposure may cause skin irritation and dermatitis, due to degreasing properties of the product.

**SECTION 12: Ecological information****12.1. Toxicity**

Ecological data are not available.

Harmful to aquatic life with long lasting effects.

Styrene

LC50/Pimephales promelas/96 h = 4,02 mg/kg

EC50/Daphnia magna/48 h = 4,7 mg/kg

EC50/Pseudokirchneriella subcapitata/72 h > 4,9 mg/kg

**12.2. Persistence and degradability**

Biodegradable (OECD): 70,9% (28 d)

Readily biodegradable (to OECD criteria).

**12.3. Bioaccumulative potential**

Low bio-accumulation can be estimated because of low log Po/w.

**12.4. Mobility in soil**

No data available

**12.5. Results of PBT and vPvB assessment**

The substances in the mixture do not meet the PBT/vPvB criteria according to UK REACH.

**12.6. Endocrine disrupting properties**

This product does not contain a substance that has endocrine disrupting properties with respect to non-target organisms as no components meets the criteria.

**12.7. Other adverse effects**

Hazardous water pollutant.

Product is toxic to fish and their nutrient animals.

**Further information**

Do not flush into surface water or sanitary sewer system.

**SECTION 13: Disposal considerations****13.1. Waste treatment methods****Disposal recommendations**

Can be incinerated, when in compliance with local regulations.

Where possible recycling is preferred to disposal.

**List of Wastes Code - residues/unused products**

080409 WASTES FROM THE MANUFACTURE, FORMULATION, SUPPLY AND USE (MFSU) OF COATINGS (PAINTS, VARNISHES AND VITREOUS ENAMELS), ADHESIVES, SEALANTS AND PRINTING INKS; wastes from MFSU of adhesives and sealants (including waterproofing products); waste adhesives and sealants containing organic solvents or other hazardous substances; hazardous waste

**Contaminated packaging**

Contaminated packaging should be emptied as far as possible and after appropriate cleansing may be taken for reuse.

Packaging that cannot be cleaned should be disposed of like the product.

**SECTION 14: Transport information**



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#### Land transport (ADR/RID)

**14.1. UN number:** UN 2055  
**14.2. UN proper shipping name:** STYRENE MONOMER, STABILIZED  
**14.3. Transport hazard class(es):** 3  
**14.4. Packing group:** III  
Hazard label: 3



Classification code: F1  
Limited quantity: 5 L / 30 kg  
Excepted quantity: E1  
Transport category: 3  
Hazard No: 39  
Tunnel restriction code: D/E

#### Inland waterways transport (ADN)

**14.1. UN number:** UN 2055  
**14.2. UN proper shipping name:** STYRENE MONOMER, STABILIZED  
**14.3. Transport hazard class(es):** 3  
**14.4. Packing group:** III  
Hazard label: 3



Classification code: F1  
Limited quantity: 5 L / 30 kg  
Excepted quantity: E1

#### Marine transport (IMDG)

**14.1. UN number:** UN 2055  
**14.2. UN proper shipping name:** STYRENE MONOMER, STABILIZED  
**14.3. Transport hazard class(es):** 3  
**14.4. Packing group:** III  
Hazard label: 3



Marine pollutant: No  
Limited quantity: 5 L / 30 kg  
Excepted quantity: E1  
EmS: F-E, S-D

#### Air transport (ICAO-TI/IATA-DGR)

**14.1. UN number:** UN 2055  
**14.2. UN proper shipping name:** STYRENE MONOMER, STABILIZED  
**14.3. Transport hazard class(es):** 3  
**14.4. Packing group:** III  
Hazard label: 3

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Limited quantity Passenger:	10 L
Passenger LQ:	Y344
Excepted quantity:	E1
IATA-packing instructions - Passenger:	355
IATA-max. quantity - Passenger:	60 L
IATA-packing instructions - Cargo:	366
IATA-max. quantity - Cargo:	220 L

#### 14.5. Environmental hazards

ENVIRONMENTALLY HAZARDOUS: No

#### 14.6. Special precautions for user

Handle in accordance with good industrial hygiene and safety practice.

#### 14.7. Maritime transport in bulk according to IMO instruments

The transport takes place only in approved and appropriate packaging.

### SECTION 15: Regulatory information

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

##### EU regulatory information

Restrictions on use (REACH, annex XVII):

Entry 3, Entry 40, Entry 75

Directive 2004/42/EC on VOC in  
paints and varnishes: 100 %; 910 g/lInformation according to Directive  
2012/18/EU (SEVESO III): P5c FLAMMABLE LIQUIDS

##### National regulatory information

Employment restrictions: Observe restrictions to employment for juveniles according to the 'juvenile work protection guideline' (94/33/EC). Observe employment restrictions under the Maternity Protection Directive (92/85/EEC) for expectant or nursing mothers.

Water hazard class (D): 2 - obviously hazardous to water

#### 15.2. Chemical safety assessment

For this substance a chemical safety assessment has not been carried out.

### SECTION 16: Other information

#### Changes

This data sheet contains changes from the previous version in section(s): 2,6,7,9,10,11,12,14,15.

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**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  
IMDG = International Maritime Code for Dangerous Goods  
IATA/ICAO = International Air Transport Association / International Civil Aviation Organization  
MARPOL = International Convention for the Prevention of Pollution from Ships  
IBC-Code = International Code for the Construction and Equipment of Ships Carrying Dangerous Chemicals in Bulk

GHS = Globally Harmonized System of Classification and Labelling of Chemicals  
REACH = Registration, Evaluation, Authorization and Restriction of Chemicals  
CAS = Chemical Abstract Service  
EN = European norm  
ISO = International Organization for Standardization  
DIN = Deutsche Industrie Norm  
PBT = Persistent Bioaccumulative and Toxic  
vPvB = Very Persistent and very Bio-accumulative

LD = Lethal dose  
LC = Lethal concentration  
EC = Effect concentration  
IC = Median immobilisation concentration or median inhibitory concentration

**Classification for mixtures and used evaluation method according to GB CLP Regulation**

Classification	Classification procedure
Flam. Liq. 3; H226	On basis of test data
Acute Tox. 4; H332	Calculation method
Asp. Tox. 1; H304	Calculation method
Skin Irrit. 2; H315	Calculation method
Eye Irrit. 2; H319	Calculation method
Repr. 2; H361d	Calculation method
STOT SE 3; H335	Calculation method
STOT RE 1; H372	Calculation method
Aquatic Chronic 3; H412	Calculation method

**Relevant H and EUH statements (number and full text)**

H226 Flammable liquid and vapour.  
H304 May be fatal if swallowed and enters airways.  
H315 Causes skin irritation.  
H319 Causes serious eye irritation.  
H332 Harmful if inhaled.  
H335 May cause respiratory irritation.  
H361d Suspected of damaging the unborn child.  
H372 Causes damage to organs through prolonged or repeated exposure.  
H412 Harmful to aquatic life with long lasting effects.

**Further Information**

Data of items 4 to 8, as well as 10 to 12, do partly not refer to the use and the regular employing of the product (in this sense consult information on use and on product), but to liberation of major amounts in case of accidents and irregularities.

The information describes exclusively the safety requirements for the product(s) and is based on the present level of our knowledge.

The delivery specifications are contained in the corresponding product sheet.



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This data does not constitute a guarantee for the characteristics of the product(s) as defined by the legal warranty regulations.

(n.a. = not applicable; n.d. = not determined)

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*(The data for the relevant ingredients were taken respectively from the last version of the sub-contractor's safety data sheet.)*