

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

### **1.1. Product identifier**

TIP TOP PIGMENT SOLUTION P1

**Art.-No.**

590 0844

### **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**

TIP TOP Oberflächenschutz Elbe GmbH

Heuweg 4

D-06886 Wittenberg

Telephone: +49(0)3491/635-50

Telefax: +49(0)3491/635-552

Responsible for the safety data sheet: sds@gbk-ingelheim.de

### **1.4. Emergency telephone**

Emergency telephone :+49 (0) 6132 / 84463 (GBK Gefahrgut Buero GmbH, Ingelheim)

## **SECTION 2: Hazards identification**

### **2.1. Classification of the substance or mixture**

Indications of danger: Xn - Harmful

R phrases:

Flammable.

Harmful by inhalation.

Irritating to eyes and skin.

#### **GHS classification**

Hazard categories:

Flammable liquid: Flam. Liq. 3

Acute toxicity: Acute Tox. 4

Skin corrosion/irritation: Skin Irrit. 2

Serious eye damage/eye irritation: Eye Irrit. 2

Specific target organ toxicity - single exposure: STOT SE 3

Specific target organ toxicity - repeated exposure: STOT RE 1

Hazard Statements:

Flammable liquid and vapour.

Causes skin irritation.

Causes serious eye irritation.

Harmful if inhaled.

May cause respiratory irritation.

Causes damage to organs through prolonged or repeated exposure.

### **2.2. Label elements**

**Pictograms:**

GHS02-GHS07-GHS08



**Signal word:**

Danger

**Hazardous components which must be listed on the label**

Styrene

#### **Hazard statements**

H226 Flammable liquid and vapour.

H315 Causes skin irritation.

H319 Causes serious eye irritation.

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H332 Harmful if inhaled.  
H335 May cause respiratory irritation.  
H372 Causes damage to organs through prolonged or repeated exposure.

**Precautionary statements**

P210 Keep away from heat/sparks/open flames/hot surfaces. - No smoking.  
P260 Do not breathe vapour.  
P280 Wear protective gloves/protective clothing/eye protection/face protection.  
P303+P361+P353 IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.  
P304+P340 IF INHALED: Remove victim to fresh air and keep at rest in a position 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.

**2.3. Other hazards**

Vapours may form explosive mixture with air.

**SECTION 3: Composition/information on ingredients**

**3.2. Mixtures**

**Chemical characterization**

Preparation with styrene

**Hazardous components**

EC No	Chemical name	Quantity
CAS No	Classification	
Index No	GHS classification	
REACH No		
202-851-5	Styrene	
100-42-5	Xn - Harmful, Xi - Irritant R10-20-36/38	< 90 %
601-026-00-0	Flam. Liq. 3, Acute Tox. 4, Skin Irrit. 2, Eye Irrit. 2, STOT SE 3, STOT RE 1, Asp. Tox. 1; H226 H332 H315 H319 H335 H372 H304	
01-2119457861-32		

Full text of R and H phrases: see Section 16.

**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**

Harmful by inhalation.

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Causes skin irritation.  
Causes serious eye irritation.  
May cause respiratory irritation.  
Causes damage to organs through prolonged or repeated exposure. (the ear)  
Attention. Beware, danger of aspiration.

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

Treat symptoms.

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**SECTION 5: Firefighting measures**

**5.1. Extinguishing media**

**Suitable extinguishing media**

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

**Extinguishing media which must not be used for safety reasons**

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.

**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.

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**SECTION 6: Accidental release measures**

**6.1. Personal precautions, protective equipment and emergency procedures**

In case of vapour formation use respirator.  
Ensure adequate ventilation.  
Remove persons to safety.  
Use personal protective clothing.  
Keep away sources of ignition.

**6.2. Environmental precautions**

Do not discharge into the drains/surface waters/groundwater.

**6.3. Methods and material for containment and 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 look up chapter 13.

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**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**

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**Requirements for storage rooms and vessels**

Keep container tightly closed in a dry, cool and well-ventilated place.  
Pay attention to anti-explosion rules.

**Advice on storage compatibility**

Incompatible with:  
Metal salts, Peroxides, Acids and bases.

**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**

**Occupational exposure 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.

**Respiratory protection**

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

**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/>

**Eye protection**

Tightly fitting goggles.  
Eye wash bottle with pure water.

**Skin protection**

Long sleeved clothing.  
Solvent-resistant apron.

**SECTION 9: Physical and chemical properties**

**9.1. Information on basic physical and chemical properties**

Physical state: Viscous  
Colour: Green  
Odour: Pungent

**Test method**

**Changes in the physical state**

Boiling point: Approx. 145 °C  
Flash point: < 31 °C

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Lower explosion limits:	1,1 vol. %
Upper explosion limits:	
Ignition temperature:	490 °C
Vapour pressure: (at 20 °C)	6 hPa Approx.
Density:	< 1 g/cm³
Water solubility: (at 20 °C)	Immiscible
Flow time: (at 23 °C)	> 60 s 6 DIN/ISO 2431
Solvent content:	< 90 %

**9.2. Other information**

No data available.

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**SECTION 10: Stability and reactivity**

**10.1. Reactivity**

No decomposition if stored and applied as directed.

**10.2. Chemical stability**

Stable under normal conditions.

**10.3. Possibility of hazardous reactions**

Reactions with strong acids and alkalies.

Reactions with peroxides.

**10.4. Conditions to avoid**

To avoid thermal decomposition, do not overheat.

Vapour/air mixtures are explosive at intensive warming.

Heating can release vapours which can be ignited.

If heating up polymerisation.

**10.5. Incompatible materials**

Metal salts, Peroxides, Acids and bases.

**10.6. Hazardous decomposition products**

Irritant/corrosive, flammable as well as toxic distillation gases (carbonization gases).

Carbon monoxide and carbon dioxide.

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**SECTION 11: Toxicological information**

**11.1. Information on toxicological effects**

**Acute toxicity**

No toxicological data available.

Harmful by inhalation.

Styrene

LD50/oral/rat: 5000 mg/kg

LD50/dermal/rat: > 2000 mg/kg

LC50/inhalation/rat: 11,8 mg/l/4h

**Irritation and corrosivity**

Skin irritation: Irritant

Eye irritation: Irritant

**Sensitising effects**

Not classified.

**Severe effects after repeated or prolonged exposure**

STOT - Single exposure: Category 3 [May cause respiratory irritation.]

STOT - Repeated exposure: Category 1 [Causes damage to organs through prolonged or repeated exposure. (the ear)]

Aspiration hazard: Not classified.

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

Carcinogenicity: Not classified.

Mutagenicity: Not classified.

Teratogenicity: Not classified.

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**Additional information on tests**

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

**Empirical data on effects on humans**

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.

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): 80% (20 d) (Closed-bottles-test)

Product is biodegradable.

**12.3. Bioaccumulative potential**

No data available.

**12.4. Mobility in soil**

No data available.

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

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

**12.6. 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**

**Advice on disposal**

Can be incinerated, when in compliance with local regulations.

Where possible recycling is preferred to disposal.

**Waste disposal number of waste from 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 dangerous substances  
Classified as 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**

**Land transport (ADR/RID)**

**14.1. UN number:**

UN2055

**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

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

**Other applicable information (land transport)**

Viscous substance - excepted quantity if in containers with a capacity up to 450 l (subsection 2.2.3.1.5 ADR).

**Inland waterways transport (ADN)**

**14.1. UN number:** UN2055  
**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

**Other applicable information (inland waterways transport)**

Viscous substance - excepted quantity if in containers with a capacity up to 450 l (subsection 2.2.3.1.5 ADN).

**Marine transport (IMDG)**

**14.1. UN number:** UN2055  
**14.2. UN proper shipping name:** STYRENE MONOMER, STABILIZED  
**14.3. Transport hazard class(es):** 3  
**14.4. Packing group:** III  
Hazard label: 3



Limited quantity: 5 L / 30 kg  
EmS: F-E, S-D

**Other applicable information (marine transport)**

Viscous substance - excepted quantity if in containers with a capacity up to 30 l (subsection 2.3.2.5 IMDG Code).

**Air transport (ICAO)**

**UN/ID number:** UN2055  
**14.2. UN proper shipping name:** STYRENE MONOMER, STABILIZED  
**14.3. Transport hazard class(es):** 3  
**14.4. Packing group:** III  
Hazard label: 3



Limited quantity Passenger: Y344 / 10 L  
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**

Dangerous for the environment: no

**14.6. Special precautions for user**

Handle in accordance with good industrial hygiene and safety practice.

**14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code**

The transport takes place only in approved and appropriate packaging.

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**SECTION 15: Regulatory information**

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

**EU regulatory information**

1999/13/EC (VOC): < 87 %; < 835 g/l

**National regulatory information**

Employment restrictions: Observe employment restrictions for young people. Observe employment restrictions for child bearing mothers and nursing.

Water contaminating class (D): 2 - water contaminating

**15.2. Chemical safety assessment**

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

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**SECTION 16: Other information**

**Full text of R phrases referred to under Sections 2 and 3**

10 Flammable.  
20 Harmful by inhalation.  
36/38 Irritating to eyes and skin.

**Full text of H statements referred to under Sections 2 and 3**

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.  
H372 Causes damage to organs through prolonged or repeated exposure.

**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.

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