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

1.1. Product identifier

TIP TOP LINING 25 Art.-No. 590 1427, 590 1434

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

Use of the substance/mixture	
Laminate coat	

1.3. Details of the supplier of the safety data sheet

Company name:	TIP TOP Oberflaechenschutz Elbe GmbH
Street:	Heuweg 4
Place:	D-06886 Wittenberg
Telephone:	+49(0)3491/635-50
Telefax:	+49(0)3491/635-552
Responsible Department:	Responsible for the safety data sheet: sds@gbk-ingelheim.de
<u>1.4. Emergency telephone</u> number:	INTERNATIONAL: +49 - (0) 6132 - 84463, GBK GmbH (24h - 7d/w - 365d/a) England and Wales: NHS Direct - 0845 4647; Scotland: NHS 24 - 08454 24 24 24

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture according to 1272/2008/EC

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 Reproductive toxicity: Repr. 2 Specific target organ toxicity - single exposure: STOT SE 3 Specific target organ toxicity - repeated exposure: STOT RE 1 Hazardous to the aquatic environment: Aquatic Chronic 3 Hazard Statements: Flammable liquid and vapour. Harmful if inhaled. May cause respiratory irritation. Causes serious eye irritation. Causes skin irritation. Suspected of damaging the unborn child. Causes damage to organs through prolonged or repeated exposure. Harmful to aquatic life with long lasting effects.

2.2. Label elements

Hazard components for labelling Styrene N,N-Dimethylaniline Signal word:

Pictograms:



Hazard statements

Flammable liquid and vapour. Harmful if inhaled.
May cause respiratory irritation.
Causes serious eye irritation.
Causes skin irritation.

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H361d 3	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 stateme	ents
P202	Do not handle until all safety precautions have been read and understood.
	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.
	IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
P304+P340	IF INHALED: Remove person to fresh air and keep comfortable for breathing.
	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P273	Avoid release to the environment.
P405	Store locked up.
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Special labelling of certain mixtures

EUH208 Contains Cobalt bis (2-ethylhexanoate). May produce an allergic reaction.

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

CAS No	Chemical name			Quantity
	EC No	Index No	REACH No	
	Classification according to	Regulation (EC) No. 1272/2008 [0	CLP]	
100-42-5	Styrene			< 50 %
	202-851-5	601-026-00-0	01-2119457861-32	
	Flam. Liq. 3, Repr. 2, Acut H226 H361d H332 H315 H	•	TOT SE 3, STOT RE 1, Asp. Tox. 1;	
136-52-7	Cobalt bis (2-ethylhexanoa	ite)		< 1 %
	205-250-6		01-2119524678-29	
	Repr. 2, Skin Sens. 1, Aqu	atic Acute 1, Aquatic Chronic 1; H	361f H317 H400 H410	
64742-95-6	Solvent naphta (petroleum)		< 1 %
	918-668-5	649-356-00-4	01-2119455851-35	
	Flam. Liq. 3, STOT SE 3, 5 H411 EUH066	STOT SE 3, Asp. Tox. 1, Aquatic C	hronic 2; H226 H335 H336 H304	
121-69-7	N,N-Dimethylaniline			< 0,2 %
	204-493-5	612-016-00-0	01-2119935241-47	
	Carc. 2, Acute Tox. 3, Acut	e Tox. 3, Acute Tox. 3, Aquatic Ch	ronic 2; H351 H301 H311 H331 H411	

Full text of H and EUH statements: 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.

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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 if inhaled. 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. Attention. Beware, danger of aspiration.

<u>4.3. Indication of any immediate medical attention and special treatment needed</u> Treat symptoms.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media

Alcohol-resistant foam, dry chemical, carbon dioxide (CO2), 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 Irritant/corrosive, flammable as well as toxic distillation gases (carbonization gases).

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.

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/ground water. Do not discharge into the subsoil/soil.

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).

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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. Avoid temperatures above 50°C.

Advice on storage compatibility

Incompatible with: Oxidizing agents, Metal halogenides, Peroxides

Further information on storage conditions

Keep away from food, drink and animal feeding stuffs.

7.3. Specific end use(s)

Laminate coat

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Exposure limits (EH40)

CAS No	Substance	ppm	mg/m³	fibres/ml	Category	Origin
121-69-7	N,N-Dimethylaniline	5	25		TWA (8 h)	WEL
		10	50		STEL (15 min)	WEL
100-42-5	Styrene	100	430		TWA (8 h)	WEL
l		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

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

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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 (EN 368). 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

on in buolo physical and one		
Physical state:	Liquid	
Colour:	Violet	
Odour:	characteristic	
Changes in the physical state		
Flash point:	33 °C	CC
Lower explosion limits:	1,1 vol. %	
Upper explosion limits:		
Ignition temperature:	490 °C	
Vapour pressure:	6 hPa	
(at 20 °C)		
Density:	1,09 - 1,13 g/cm³	
Water solubility:	Immiscible	
(at 20 °C)		
Viscosity / dynamic:	500 - 900 mPa·s	
(at 25 °C)		
Viscosity / kinematic:	> 20,5 mm²/s	
(at 40 °C)		
Flow time:	25 s	6 DIN/ISO 2431
(at 25 °C)		
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

Stable under normal conditions.

10.3. Possibility of hazardous reactions

Reactions with oxidizing agents. 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. Avoid temperatures above 50°C. If heating up polymerisation.

10.5. Incompatible materials

Oxidizing agents, Metal halogenides, Peroxides

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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 toxicological effects

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

Irritation and corrosivity

Causes serious eye irritation. Causes skin irritation.

Sensitising effects

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

STOT-single exposure

May cause respiratory irritation. (Styrene), (Solvent naphta (petroleum))

Severe effects after repeated or prolonged exposure

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

Carcinogenic/mutagenic/toxic effects for reproduction

Suspected of damaging the unborn child. (Styrene)

Aspiration hazard

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

Practical experience

Other observations

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/Pseudokirchneriela subcapitata/72 h > 4,9 mg/kg Harmful to aquatic life with long lasting effects.

12.2. Persistence and degradability

No data available.

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.

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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. FORMUL

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 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)

<u>14.1. UN number:</u>	UN 1866
14.2. UN proper shipping name:	Resin solution
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:	30
Tunnel restriction code:	D/E
Inland waterways transport (ADN)	
<u>14.1. UN number:</u>	UN 1866
14.2. UN proper shipping name:	Resin solution
14.3. Transport hazard class(es):	3
14.4. Packing group:	III
Hazard label:	3
Hazard label:	3
Hazard label: Classification code:	3 5 F1
Classification code:	F1
Classification code: Limited quantity:	F1 5 L / 30 kg
Classification code: Limited quantity: Excepted quantity:	F1 5 L / 30 kg
Classification code: Limited quantity: Excepted quantity: Marine transport (IMDG)	F1 5 L / 30 kg E1
Classification code: Limited quantity: Excepted quantity: Marine transport (IMDG) 14.1. UN number:	F1 5 L / 30 kg E1 UN 1866
Classification code: Limited quantity: Excepted quantity: Marine transport (IMDG) 14.1. UN number: 14.2. UN proper shipping name:	F1 5 L / 30 kg E1 UN 1866 Resin solution
Classification code: Limited quantity: Excepted quantity: Marine transport (IMDG) 14.1. UN number: 14.2. UN proper shipping name: 14.3. Transport hazard class(es):	F1 5 L / 30 kg E1 UN 1866 Resin solution 3

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Marina nallutant:	No
Marine pollutant: Limited quantity:	5 L / 30 kg
Excepted quantity:	E1
EmS:	F-E, S-E
Air transport (ICAO)	
<u>14.1. UN number:</u>	UN 1866
14.2. UN proper shipping name:	Resin solution
14.3. Transport hazard class(es):	3
14.4. Packing group:	III
Hazard label:	3
Limited quantity Passenger:	10 L
Passenger LQ:	Y344
Excepted quantity:	E1
IATA-packing instructions - Passenger: IATA-max. quantity - Passenger:	355 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 hyg	jiene and safety practice.
14.7. Transport in bulk according to Annex I	
The transport takes place only in approved an	d appropriate packaging.
SECTION 15: Regulatory information	
15.1. Safety, health and environmental regul	ations/legislation specific for the substance or mixture
EU regulatory information	
2004/42/EC (VOC):	< 5 %; < 90 g/l
National regulatory information	
Employment restrictions:	Observe restrictions to employment for juvenils 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 contaminating class (D): Additional information	2 - water contaminating

Consider Chemical prohibition regulation.

SECTION 16: Other information

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

Safety Data Sheet according to Regulation (EC) No 1907/2006 TIP TOP Oberflaechenschutz Elbe GmbH

TIP TOP LINING 25

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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 concentra EC = Effect concentra IC = Median immobilis		
Relevant H and EUH	statements (number and full text)	
H226	Flammable liquid and vapour.	
H301	Toxic if swallowed.	
H304	May be fatal if swallowed and enters airways.	
H311	Toxic in contact with skin.	
H315	Causes skin irritation.	
H317	May cause an allergic skin reaction.	
H319	Causes serious eye irritation.	
H331	Toxic if inhaled.	
H332	Harmful if inhaled.	
H335	May cause respiratory irritation.	
H336	May cause drowsiness or dizziness.	
H351	Suspected of causing cancer.	
H361d	Suspected of damaging the unborn child.	
H361f	Suspected of damaging fertility.	
H372	Causes damage to organs through prolonged or repeated exposure.	
H400	Very toxic to aquatic life.	
H410	Very toxic to aquatic life with long lasting effects.	
H411	Toxic to aquatic life with long lasting effects.	
H412	Harmful to aquatic life with long lasting effects.	
EUH066	Repeated exposure may cause skin dryness or cracking.	
EUH208 Contains Cobalt bis (2-ethylhexanoate). May produce an allergic reaction.		
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)

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