



1. Identification of the substance/preparation and of the company/undertaking

Identification of the substance or preparation

TIP TOP COROFLAKE 28 AR TOP COAT / TIP TOP COROFLAKE AR TC HP

Art.-No.:

Tip Top Coroflake 28 AR TOP COAT: 590 1173, 590 1180

Tip Top Coroflake AR TC HP: 590 1174

Use of the substance/preparation

Coating material

Company/undertaking identification

TIP TOP Oberflächenschutz Elbe GmbH

Heuweg 4

D-06886 Wittenberg

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

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

Responsible Department

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

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

2. Hazards identification

Classification

Indications of danger : Harmful

R-phrases :

Flammable.

Harmful by inhalation.

Irritating to eyes and skin.

3. Composition/information on ingredients

Chemical characterization (Mixture)

Epoxide-vinyl ester-resin in styrene

Hazardous components

EC-No.	CAS-No.	Chemical name	Quantity	Classification
202-851-5	100-42-5	Styrene	20 - 40 %	Xn, Xi R10-20-36/38

Full text of each relevant R phrase can be found in heading 16.

4. 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

Induce vomiting only upon the advice of a physician.

Do not give milk.

Attention. Beware, danger of aspiration.

Do not induce vomiting.

Summon a doctor immediately.

Immediately give plenty of water, if possible charcoal slurry.

5. Fire-fighting measures

Suitable extinguishing media

Alcohol-resistant foam, dry chemical, carbon dioxide (CO₂), water-spray.

Extinguishing media which must not be used for safety reasons

Full water jet

Special exposure hazards arising from substance or preparation itself, combustion products, resulting gases

Fire may produce:

Carbon monoxide and carbon dioxide.

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

Special protective equipment for fire-fighters

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.

6. Accidental release measures

Personal precautions

In case of vapour formation use respirator.

Ensure adequate ventilation.

Remove persons to safety.

Use personal protective clothing.

Keep away sources of ignition.

Environmental precautions

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

Methods for cleaning up/taking up

Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder).

Shovel into suitable container for disposal.



7. Handling and storage

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.

Storage

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.

8. Exposure controls/personal protection

Exposure limit values

Exposure limits (EH40)

CAS-No.	Chemical name	ml/m ³	mg/m ³	F/ml	Category	Origin
100-42-5	Styrene	100	430		TWA (8 h)	WEL
	Styrene	250	1080		STEL (15 min)	WEL

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 glove 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

Eye wash bottle with pure water.

Tightly fitting goggles

Skin protection

Long sleeved clothing.

Solvent-resistant apron.

9. Physical and chemical properties

General information

Physical state	Liquid
Colour	Yellowish
Odour	Pungent

Important health, safety and environmental information

	Test method
Changes in the physical state	
Flash point	35 °C
Flammability	
Lower explosion limits	1,1 vol. %
Upper explosion limits	
Ignition temperature	490 °C
Vapour pressure :	6 hPa
at (20 °C)	
Density :	1,2 g/cm ³
Water solubility :	Immiscible
at (20 °C)	
Viscosity / dynamic :	2000 - 2500 mPa·s
Flow time :	> 40 s Ford beaker, no. 6

10. Stability and reactivity

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.

Materials to avoid

Oxidizing agents, Metal halogenides, Peroxides

Hazardous decomposition products

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

Carbon monoxide and carbon dioxide.



Additional information

No decomposition if stored and applied as directed.

11. Toxicological information

Empirical data on effects on humans

Harmful by inhalation.

Irritating to eyes and skin.

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.

12. Ecological information

Further information

Do not flush into surface water or sanitary sewer system.

Hazardous water pollutant.

Product is toxic to fish and their nutrient animals.

13. Disposal considerations

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.

14. Transport information

Land transport (ADR/RID)

ADR/RID class	3
Classification code :	F1
Hazard-no.	30
UN number	1866
Hazard label	3
ADR/RID packing group	III
Limited quantity	LQ 7

Description of the goods

Resin solution

Safety Data Sheet according to Regulation (EU) No. 1907/2006

TIP TOP Oberflächenschutz Elbe GmbH

Revision date: 02.11.2009

Revision no.: 1,01

TIP TOP COROFLAKE 28 AR TOP COAT / TIP TOP COROFLAKE AR TC HP

00359-1029

**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).

Tunnel restriction code: D/E

Transport category: 3

Inland waterways transport**Marine transport**

IMDG code	3
UN number	1866
Marine pollutant	No
EmS	F-E; S-E
IMDG packing group	III
Limited quantity :	5 L / 30 kg
Hazard label	3

Description of the goods

RESIN SOLUTION

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/IATA-DGR	3
UN/ID number	1866
Hazard label	3
IATA-packing instructions - Passenger	309
IATA-max. quantity - Passenger	60 L
IATA-packing instructions - Cargo	310
IATA-max. quantity - Cargo	220 L
ICAO packing group	III
Limited quantity Passenger	Y309 / 10 L

Description of the goods

RESIN SOLUTION

15. Regulatory information**Labelling**

Additional advice on labelling According to EC-regulations the product is to be labelled as follows:

Indication of danger Xn - Harmful

Hazardous component(s) to be indicated on label

Styrene

R phrases

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

S phrases

- 23 Do not breathe vapour.
- 35 This material and its container must be disposed of in a safe way.
- 51 Use only in well-ventilated areas.

National regulatory information

Safety Data Sheet according to Regulation (EU) No. 1907/2006

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Employment restrictions	Observe employment restrictions for young people. Observe employment restrictions for child bearing mothers and nursing.
Water contaminating class (D) 1999/13/EC (VOC)	2 - water contaminating < 5 %; < 90 g/l

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.

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.)