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

1.1. Product identifier

TIP TOP COROPUR ZINC M

Art.-No.

580 0016, 580 0023, 580 0030

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

Use of the substance/mixture

Coating component

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

1.4. Emergency telephone number:

INTERNATIONAL: +49 - (0) 6132 - 84463, GBK GmbH (24h - 7d/w - 365d/a)
Public Poisons Information Line: +353 (0) 1 809 2166 (8am-10pm 7 days a week)

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Regulation (EC) No 1272/2008

Flam. Liq. 3; H226
Resp. Sens. 1; H334
Skin Sens. 1; H317
Aquatic Acute 1; H400
Aquatic Chronic 1; H410

Full text of hazard statements: see SECTION 16.

2.2. Label elements

Regulation (EC) No 1272/2008

Hazard components for labelling

Hydrocarbons, C9, aromatics
Aromatic polyisocyanate
Aromatic polyisocyanate prepolymer
4-isocyanatosulphonyltoluene
Fatty acids, C18-unsaturated, dimers, reaction products with N, N-dimethyl-1,3-propanediamine and 1,3-propanediamine
4-methyl-m-phenylene diisocyanate, toluene-2,6-di-isocyanate

Signal word: Danger

Pictograms:

Hazard statements

H226	Flammable liquid and vapour.
H317	May cause an allergic skin reaction.
H334	May cause allergy or asthma symptoms or breathing difficulties if inhaled.
H410	Very toxic to aquatic life with long lasting effects.

Precautionary statements

P261	Avoid breathing vapour.
P273	Avoid release to the environment.
P280	Wear protective gloves/protective clothing/eye protection/face protection.
P304+P340	IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P342+P311	If experiencing respiratory symptoms: Call a POISON CENTER/doctor.
P403+P235	Store in a well-ventilated place. Keep cool.

Special labelling

EUH204 Contains isocyanates. May produce an allergic reaction.

As from 24 August 2023 adequate training is required before industrial or professional use.

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

Aromatic polyisocyanate

Hazardous components

CAS No	Chemical name			Quantity
	EC No	Index No	REACH No	
	Classification (Regulation (EC) No 1272/2008)			
7440-66-6	zinc powder - zinc dust (stabilized)			> 70 %
	231-175-3	030-001-01-9	01-2119467174-37	
	Aquatic Acute 1, Aquatic Chronic 1; H400 H410			
	Hydrocarbons, C9, aromatics			8 - < 10 %
	918-668-5		01-2119455851-35	
	Flam. Liq. 3, STOT SE 3, Asp. Tox. 1, Aquatic Chronic 2; H226 H336 H304 H411			
123-86-4	n-Butyl acetate			5 - < 7 %
	204-658-1	607-025-00-1	01-2119485493-29	
	Flam. Liq. 3, STOT SE 3; H226 H336 EUH066			
53317-61-6	Aromatic polyisocyanate			5 - < 7 %
	500-120-8			
	Eye Irrit. 2, Skin Sens. 1; H319 H317			
103051-64-5	Aromatic polyisocyanate			3 - < 5 %
	Skin Sens. 1; H317			
127821-00-5	Aromatic polyisocyanate prepolymer			1 - < 2 %
	Acute Tox. 4, Eye Irrit. 2, Resp. Sens. 1, Skin Sens. 1; H332 H319 H334 H317			
4083-64-1	4-isocyanatosulphonyltoluene			0,5 - < 1 %
	223-810-8	615-012-00-7	01-2119980050-47	
	Skin Irrit. 2, Eye Irrit. 2, Resp. Sens. 1, STOT SE 3; H315 H319 H334 H335 EUH014			
162627-17-0	Fatty acids, C18-unsaturated, dimers, reaction products with N, N-dimethyl-1,3-propanediamine and 1,3-propanediamine			0,15 - < 0,2 %
	605-296-0		01-2119970640-38	
	Skin Sens. 1A; H317			
26471-62-5	4-methyl-m-phenylene diisocyanate, toluene-2,6-di-isocyanate			0,05 - < 0,1 %
	247-722-4	615-006-00-4	01-2119454791-34	
	Carc. 2, Acute Tox. 2, Skin Irrit. 2, Eye Irrit. 2, Resp. Sens. 1, Skin Sens. 1, STOT SE 3, Aquatic Chronic 3; H351 H330 H315 H319 H334 H317 H335 H412			

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

Specific Conc. Limits, M-factors and ATE

CAS No	EC No	Chemical name	Quantity
	Specific Conc. Limits, M-factors and ATE		
127821-00-5		Aromatic polyisocyanate prepolymer	1 - < 2 %
	inhalation: ATE = 11 mg/l (vapours); inhalation: ATE = 1,5 mg/l (dusts or mists)		
4083-64-1	223-810-8	4-isocyanatosulphonyltoluene	0,5 - < 1 %
	Skin Irrit. 2; H315: >= 5 - 100 Eye Irrit. 2; H319: >= 5 - 100 STOT SE 3; H335: >= 5 - 100		
26471-62-5	247-722-4	4-methyl-m-phenylene diisocyanate, toluene-2,6-di-isocyanate	0,05 - < 0,1 %
	inhalation: ATE = 0,5 mg/l (vapours); inhalation: ATE = 0,05 mg/l (dusts or mists); dermal: LD50 = >19000 mg/kg; oral: LD50 = 5800 mg/kg Resp. Sens. 1; H334: >= 0,1 - 100		

Further Information

According to note P to the directive 67/548/EEC, "Solvent naphta (petroleum)" is not to be classified as "carcinogenic" ingredient because a benzene content (EINECS No. 200-753-7) is below 0.1 % by weight.

SECTION 4: First aid measures

4.1. Description of first aid measures

General information

Remove contaminated soaked clothing immediately.
If you feel unwell, seek medical advice.
Take away from danger area and lay down affected person.
In case of the person being unconscious put him/her in a stable side position.

After inhalation

Move to fresh air in case of accidental inhalation of vapours or decomposition products.
Refer for medical treatment.
If patient is not breathing, apply artificial respiration.

After contact with skin

Wash off with soap and plenty of water.
Consult a doctor if skin irritation persists.
Do not use solvents or thinners.

After contact with eyes

Remove contact lens.
Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes.
Seek medical treatment by eye specialist.

After ingestion

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

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

May cause an allergic skin reaction.
May cause allergy or asthma symptoms or breathing difficulties if inhaled.
Attention. Beware, danger of aspiration.

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_2), water-spray.

Unsuitable extinguishing media

Full water jet.

5.2. Special hazards arising from the substance or mixture

Fire may produce:
Carbon monoxide (CO), carbon dioxide (CO_2) and nitrogen oxides (NO_x).

5.3. Advice for firefighters

Wear self-contained breathing apparatus and protective suit.

Additional information

Cool containers at risk with water spray jet.
The vapour/air mixture is explosive, even in empty, uncleaned receptacles.
Vapours are heavier than air and spread along ground.
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.
Keep away sources of ignition.
Keep away noninvolved persons.

For non-emergency personnel

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

For emergency responders

In case of vapour formation use respirator.
Use personal protective clothing.
Use only explosion-proof equipment.

6.2. Environmental precautions

Do not discharge into the drains/surface waters/groundwater.
Inform competent authority about release into the sewerage, ground or into waters.

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.
Container can be pressurized by carbon dioxide due to reaction with humid air and/or water.
No not container for disposal.

6.4. Reference to other sections

Observe protective instructions (see Sections 7 and 8).
Informations for disposal look up chapter 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Advice on safe handling

Keep container tightly closed.
Keep a good ventilation and air-exhaust at the place of work.
Vapours are heavier than air and spread along ground.
Avoid contact with the skin and the eyes.
When using do not eat, drink or smoke.
Do not empty container under pressure. No pressure tank!
Containers that have been opened must be carefully resealed and kept upright to prevent leakage.

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.

Advice on general occupational hygiene

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 clothing before re-use.

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 protection rules.
Protect from heat and direct solar radiation.
Storage temperature between 15°C to 30°C

Hints on joint storage

Incompatible with:
Oxidizing agents
Acids and bases.

Further information on storage conditions

Keep away from food, drink and animal feeding stuffs.

7.3. Specific end use(s)

Coating component

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Occupational exposure limits

CAS No	Substance	ppm	mg/m³	fib/cm³	Category	Origin
-	Isocyanates (all, as -NCO)	-	0.02		TWA (8 h)	
		-	0.07		STEL (15 min)	
123-86-4	n-Butyl acetate	50	241		TWA (8 h)	
		150	723		STEL (15 min)	
584-84-9	Toluene-2,4-diisocyanate (as -NCO) (Inhalable Fraction and Vapour)	0.001	-		TWA (8 h)	
		0.003	-		STEL (15 min)	

8.2. Exposure controls

Appropriate engineering controls

Ensure adequate ventilation, especially in confined areas.

Individual protection measures, such as personal protective equipment

Eye/face protection

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

Hand protection

Protective gloves resistant to chemicals made off nitrile, Minimum coat thickness 0.4 mm, Permeation resistance (wear duration) approx. 480 minutes, i.e. protective glove <Camatril Velours 730> made by www.kcl.de.
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.

Skin protection

Long sleeved clothing (DIN EN ISO 6530)

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:	Various
Odour:	Characteristic

		Test method
Changes in the physical state		
Melting point/freezing point:	n. d.	
Boiling point or initial boiling point and boiling range:	> 35 °C	
Sublimation point:	n.a.	
Softening point:	n. d.	
Flash point:	39 °C	DIN 53213
Flammability		
Solid/liquid:	n.a.	
Explosive properties		
The product is considered non-explosive; nethertheless explosive vapour/air mixture can be generated.		
Lower explosion limits:	n. d.	
Upper explosion limits:	n. d.	
Auto-ignition temperature:	n. d.	
Self-ignition temperature		
Solid:	n.a.	
Gas:	n.a.	
Decomposition temperature:	n. d.	
pH-Value:	n. d.	
Viscosity / dynamic:	500 - 700 mPa·s	
Viscosity / kinematic: (at 40 °C)	> 20,5 mm²/s	
Flow time:	n. d.	
Water solubility: (at 20 °C)	Immiscible	
Solubility in other solvents		
n. d.		
Partition coefficient n-octanol/water:	n. d.	
Vapour pressure: (at 20 °C)	17 hPa	
Density (at 20 °C):	2,5 - 2,7 g/cm³	
Bulk density:	n.a.	
Relative vapour density:	n. d.	

9.2. Other information

Information with regard to physical hazard classes	
Sustained combustibility:	Sustained combustibility
Other safety characteristics	
Solvent separation test:	n. d.

Solvent content:	< 2016 %
Solid content:	n. d.
Evaporation rate:	n. d.

Further 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 acids, alkalies and oxidising agents.

10.4. Conditions to avoid

To avoid thermal decomposition, do not overheat.
Heating can release vapours which can be ignited.
Vapour/air-mixtures are explosive at intense warming.

10.5. Incompatible materials

Strong oxidizing agents
Strong acids and strong bases

10.6. Hazardous decomposition products

No known hazardous decomposition products.
Fire may produce:
Carbon monoxide (CO), carbon dioxide (CO2) and nitrogen oxides (NOx)

SECTION 11: Toxicological information

11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008

Acute toxicity

Based on available data, the classification criteria are not met.
No toxical dates available.

ATEmix calculated

ATE (oral) > 2000 mg/kg; ATE (dermal) > 2000 mg/kg

Irritation and corrosivity

Skin corrosion/irritation: Based on available data, the classification criteria are not met.
Serious eye damage/eye irritation: Based on available data, the classification criteria are not met.

Sensitising effects

May cause allergy or asthma symptoms or breathing difficulties if inhaled. (Aromatic polyisocyanate prepolymer; 4-isocyanatosulphonyltoluene; 4-methyl-m-phenylene diisocyanate, toluene-2,6-di-isocyanate)
May cause an allergic skin reaction. (Aromatic polyisocyanate; Aromatic polyisocyanate; Aromatic polyisocyanate prepolymer; Fatty acids, C18-unsaturated, dimers, reaction products with N, N-dimethyl-1,3-propanediamine and 1,3-propanediamine; 4-methyl-m-phenylene diisocyanate, toluene-2,6-di-isocyanate)
Contains isocyanates. May produce an allergic reaction.

Carcinogenic/mutagenic/toxic effects for reproduction

Germ cell mutagenicity: Based on available data, the classification criteria are not met.
Carcinogenicity: Based on available data, the classification criteria are not met.
Reproductive toxicity: Based on available data, the classification criteria are not met.

STOT-single exposure

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

STOT-repeated exposure

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

Aspiration hazard

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

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

Other information

Inhalation of high vapour concentrations may cause symptoms like headache, dizziness, tiredness, nausea and vomiting.
Inhalation of high concentrations may cause injuries to liver, kidneys and central nervous system.
A longer or repeated contact my lead to irritation of eyes and mucous membranes.
Repeated or prolonged exposure may cause skin irritation and dermatitis, due to degreasing properties of the product.
With hypersensitive people, reactions as cough or difficulty of breathing may appear even with tiny concentrations of isocyanates; therefore keep room aerated and ventilated.

SECTION 12: Ecological information

12.1. Toxicity

Ecological dates are not available.
Very toxic 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

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

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

Hazard to waters.

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

080111 WASTES FROM THE MANUFACTURE, FORMULATION, SUPPLY AND USE (MFSU) OF COATINGS (PAINTS, VARNISHES AND VITREOUS ENAMELS), ADHESIVES, SEALANTS AND PRINTING INKS; wastes from MFSU and removal of paint and varnish; waste paint and varnish containing organic solvents or other hazardous substances; hazardous waste

Contaminated packaging

Empty containers should be taken for local recycling, recovery or waste disposal.
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 or ID number:	UN 1263
14.2. UN proper shipping name:	PAINT
14.3. Transport hazard class(es):	3
14.4. Packing group:	III
Hazard label:	3

Classification code:	F1
Special Provisions:	163 367 650
Limited quantity:	5 L / 30 kg
Excepted quantity:	E1
Transport category:	3
Hazard No:	30
Tunnel restriction code:	D/E

Inland waterways transport (ADN)

14.1. UN number or ID number:	UN 1263
14.2. UN proper shipping name:	Paint
14.3. Transport hazard class(es):	3
14.4. Packing group:	III
Hazard label:	3

Classification code:	F1
Special Provisions:	163 367 650
Limited quantity:	5 L / 30 kg
Excepted quantity:	E1

Marine transport (IMDG)

14.1. UN number or ID number:	UN 1263
14.2. UN proper shipping name:	PAINT
14.3. Transport hazard class(es):	3
14.4. Packing group:	III
Hazard label:	3

Marine pollutant:	Yes
Special Provisions:	163 223 367 955
Limited quantity:	5 L / 30 kg
Excepted quantity:	E1
EmS:	F-E, S-E

Air transport (ICAO-TI/IATA-DGR)

14.1. UN number or ID number:	UN 1263
14.2. UN proper shipping name:	PAINT
14.3. Transport hazard class(es):	3
14.4. Packing group:	III
Hazard label:	3

Special Provisions:	A3 A72 A192	
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: Yes

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.

Other applicable information

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 2010/75/EU on industrial emissions:	400 g/l
Directive 2004/42/EC on VOC in paints and varnishes:	405 g/l
Information according to Directive 2012/18/EU (SEVESO III):	P5c FLAMMABLE LIQUIDS
Additional information:	E1

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

Additional information

Consider Chemical prohibition regulation.

SECTION 16: Other information

Changes

This data sheet contains changes from the previous version in section(s): 2,4,9,11,14,15.

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 Regulation (EC) No 1272/2008 [CLP]

Classification	Classification procedure
Flam. Liq. 3; H226	On basis of test data
Resp. Sens. 1; H334	Calculation method
Skin Sens. 1; H317	Calculation method
Aquatic Acute 1; H400	Calculation method
Aquatic Chronic 1; H410	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.
H317	May cause an allergic skin reaction.
H319	Causes serious eye irritation.
H330	Fatal if inhaled.
H332	Harmful if inhaled.
H334	May cause allergy or asthma symptoms or breathing difficulties if inhaled.
H335	May cause respiratory irritation.
H336	May cause drowsiness or dizziness.
H351	Suspected of causing cancer.
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.
EUH014	Reacts violently with water.

EUH066	Repeated exposure may cause skin dryness or cracking.
EUH204	Contains isocyanates. 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 relevant ingredients were taken respectively from the last version of the sub-contractor's safety data sheet.)