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

1.1. Product identifier

TIP TOP CEMENT MC 2000

Art.-No.

525 3160, 525 3165

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

Use of the substance/mixture

adhesive

1.3. Details of the supplier of the safety data sheet

Company name:	REMA TIP TOP AG
Street:	Gruber Strasse 63
Place:	D-85586 Poing
Telephone:	+49 (0) 8121 / 707 - 0
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)
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:
Skin corrosion/irritation: Skin Irrit. 2
Respiratory or skin sensitisation: Skin Sens. 1
Carcinogenicity: Carc. 2
Specific target organ toxicity - single exposure: STOT SE 3
Hazardous to the aquatic environment: Aquatic Chronic 2
Hazard Statements:
Causes skin irritation.
May cause an allergic skin reaction.
May cause drowsiness or dizziness.
Suspected of causing cancer.
Toxic to aquatic life with long lasting effects.

2.2. Label elements

Hazard components for labelling
Tetrachloroethylene
Colophonium

Signal word: Warning

Pictograms:

Hazard statements

H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H336	May cause drowsiness or dizziness.
H351	Suspected of causing cancer.
H411	Toxic to aquatic life with long lasting effects.

Precautionary statements

P202	Do not handle until all safety precautions have been read and understood.
P261	Avoid breathing vapour.
P280	Wear protective gloves/protective clothing/eye protection/face protection.
P302+P352	IF ON SKIN: Wash with plenty of water.

P304+P340	IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P308+P313	IF exposed or concerned: Get medical advice/attention.
P405	Store locked up.
P273	Avoid release to the environment.

2.3. Other hazards

Not known.

SECTION 3: Composition/information on ingredients

3.2. Mixtures

Chemical characterization

Mixture containing following substances with additives

Hazardous components

CAS No	Chemical name			Quantity
	EC No	Index No	REACH No	
	Classification according to Regulation (EC) No. 1272/2008 [CLP]			
127-18-4	Tetrachloroethylene			< 85 %
	204-825-9	602-028-00-4	01-2119475329-28	
	Carc. 2, Skin Irrit. 2, Skin Sens. 1, STOT SE 3, Aquatic Chronic 2; H351 H315 H317 H336 H411			
1314-13-2	Zinc oxide			< 5 %
	215-222-5	030-013-00-7	01-2119463881-32	
	Aquatic Acute 1, Aquatic Chronic 1; H400 H410			
8050-09-7	Colophonium			< 1 %
	232-475-7	650-015-00-7	01-2119480418-32	
	Skin Sens. 1; H317			

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.
If patient is not breathing, apply artificial respiration.
Call a physician immediately.

After contact with skin

Wash off immediately with soap and plenty of water.
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.
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

Causes skin irritation.
May cause an allergic skin reaction.
Suspected of causing cancer.
May cause drowsiness or dizziness.

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
Foam, carbon dioxide (CO2), dry chemical, water-spray.
Product does not burn, fire-extinguishing activities according to surrounding.

Unsuitable extinguishing media
Full water jet.

5.2. Special hazards arising from the substance or mixture
Fire may produce:
Carbon monoxide and carbon dioxide
Chlorine and traces of phosgene.
Hydrogen chloride gas.

5.3. Advice for firefighters
Wear self-contained breathing apparatus and protective suit.

Additional information
Keep away from heat and sources of ignition.
Cool containers at risk with water spray jet.
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.
Use personal protective clothing.

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).
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.
Care for thoroughly room ventilation, if necessary suck off at workplace.
Avoid contact with skin, eyes and clothing.

Advice on protection against fire and explosion
Keep away from heat and sources of ignition.

7.2. Conditions for safe storage, including any incompatibilities

Requirements for storage rooms and vessels
Keep containers tightly closed in a cool, well-ventilated place.
Do not use aluminium or zinc containers for warehousing.

Advice on storage compatibility
Incompatible with:
Alkaline metals and alkaline earth metals.

Acids and oxidizing agents.
Bases.
Aluminium powder

Further information on storage conditions
Keep away from food, drink and animal feeding stuffs.

7.3. Specific end use(s)

adhesive

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Exposure limits (EH40)

CAS No	Substance	ppm	mg/m³	fibres/ml	Category	Origin
8050-09-7	Rosin-based solder flux fume	-	0.05		TWA (8 h)	WEL
		-	0.15		STEL (15 min)	WEL
127-18-4	Tetrachloroethylene	50	345		TWA (8 h)	WEL
		100	689		STEL (15 min)	WEL

8.2. Exposure controls

Appropriate engineering controls
Ensure adequate ventilation, especially in confined areas.

Protective and hygiene measures
Do not inhale vapours.
Avoid contact with eyes and skin.
Wash hands before breaks and immediately after handling the product.
When using do not eat, drink or smoke.
Take off immediately all contaminated clothing.

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 viton, minimum coat thickness 0,7 mm, permeation resistance (wear duration) approx. 480 minutes, i.e. protective glove <Vitoject 890> 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 (EN 368).

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:	Black
Odour:	Sweetish

Changes in the physical state

Initial boiling point and boiling range:	approx. 125 °C
Flash point:	n.a.
Explosive properties	The product is not explosive.

Lower explosion limits:	n.d.
Upper explosion limits:	
Ignition temperature:	> 650 °C
Decomposition temperature:	140 °C
Vapour pressure: (at 20 °C)	19 hPa
Density:	1,6 g/cm³
Water solubility: (at 20 °C)	Immiscible
Viscosity / dynamic:	3500 mPa·s
Viscosity / kinematic: (at 40 °C)	> 20,5 mm²/s
Solvent content:	< 85 %

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 acids, alkalies and oxidizing agents
Reactions with alkali metals.
Reactions with earth alkali metals.

10.4. Conditions to avoid

Above 120°C, a thermic decomposition may take place.

10.5. Incompatible materials

Alkaline metals and alkaline earth metals.
Acids and oxidizing agents.
Bases.
Aluminium powder

10.6. Hazardous decomposition products

Chlorine and traces of phosgene.
Hydrogen chloride gas
Carbon monoxide and carbon dioxide.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity

Based on available data, the classification criteria are not met.
Tetrachloroethylene
LD50/oral/rat: 3005 - 3835 mg/kg

Irritation and corrosivity

Causes skin irritation.
Eye irritation: Not classified.

Sensitising effects

May cause an allergic skin reaction. (Tetrachloroethylene), (Colophonium)

STOT-single exposure

May cause drowsiness or dizziness. (Tetrachloroethylene)

Severe effects after repeated or prolonged exposure

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

Carcinogenic/mutagenic/toxic effects for reproduction

Suspected of causing cancer. (Tetrachloroethylene)
Mutagenicity: Not classified.
Teratogenicity: Not classified.

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.

Practical experience

Other observations
Contact with eyes may cause irritation.
Repeated or prolonged exposure may cause skin irritation and dermatitis, due to degreasing properties of the product.
Effects of breathing high concentrations of vapour may include:
Headache, dizziness, weakness, unconsciousness.
Inhalation of high concentrations may cause injuries to liver, kidneys and central nervous system.

SECTION 12: Ecological information

12.1. Toxicity
Tetrachloroethylene
LC50/Oncorhynchus mykiss/ 96 h = 5 mg/l
EC50/Daphnia magna/48 h = 8,5 mg/l
EC50/Algae/96 h = 3,64 mg/l
Zinc oxide
EC50/Selenastrum capricornutum/72 h = 0,17 mg/l

Toxic to aquatic life with long lasting effects.

12.2. Persistence and degradability
Not readily biodegradable.

12.3. Bioaccumulative potential
Tetrachloroethylene
A bioaccumulation potential is to be expected.

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
Severe hazard to waters
Risk of drinking water contamination even when low quantities are released into the ground.

Further information
Do not flush into surface water or sanitary sewer system.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Advice on disposal
Where possible recycling is preferred to disposal.
Can be incinerated, when in compliance with local regulations.

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 hazardous substances Classified as 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:	UN 1897
14.2. UN proper shipping name:	TETRACHLOROETHYLENE, Solution
14.3. Transport hazard class(es):	6.1
14.4. Packing group:	III
Hazard label:	6.1

Classification code:	T1
Limited quantity:	5 L / 30 kg
Excepted quantity:	E1
Transport category:	2
Hazard No:	60
Tunnel restriction code:	E

Inland waterways transport (ADN)

14.1. UN number:	UN 1897
14.2. UN proper shipping name:	TETRACHLOROETHYLENE, Solution
14.3. Transport hazard class(es):	6.1
14.4. Packing group:	III
Hazard label:	6.1

Classification code:	T1
Limited quantity:	5 L / 30 kg
Excepted quantity:	E1

Marine transport (IMDG)

14.1. UN number:	UN 1897
14.2. UN proper shipping name:	TETRACHLOROETHYLENE
14.3. Transport hazard class(es):	6.1
14.4. Packing group:	III
Hazard label:	6.1

Marine pollutant:	Yes
Limited quantity:	5 L / 30 kg
Excepted quantity:	E1
EmS:	F-A, S-A

Other applicable information (marine transport)
SOLUTION

Air transport (ICAO)

14.1. UN number:	UN 1897
14.2. UN proper shipping name:	TETRACHLOROETHYLENE
14.3. Transport hazard class(es):	6.1

14.4. Packing group: III

Hazard label: 6.1

Limited quantity Passenger:	2 L
Passenger LQ:	Y642
Excepted quantity:	E1
IATA-packing instructions - Passenger:	655
IATA-max. quantity - Passenger:	60 L
IATA-packing instructions - Cargo:	663
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 practices.

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.

SECTION 15: Regulatory information

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

EU regulatory information

2004/42/EC (VOC): < 85 %

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): 3 - highly water contaminating

Additional information

Consider Chemical prohibition regulation.

15.2. Chemical safety assessment

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

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

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

Relevant H and EUH statements (number and full text)

H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
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.

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.)