1. Identification

Product identifier

TIP TOP CEMENT BC 3004

Art.-No.

525 4084, 525 4088, 525 4091, 525 4095, 525 4102, 525 4105, 525 4106, 525 4130, 525 4137 525 4143, 525 4144

Recommended use of the chemical and restrictions on use

Use of the substance/mixture

Adhesive

Details of the supplier of the safety data sheet

Manufacturer

Company name:	REMA TIP TOP AG
Street:	Gruber Strasse 65
Place:	D-85586 Poing
Telephone:	+49 (0) 8121 / 707 - 100
Responsible Department:	Responsible for the safety data sheet: sds@gbk-ingelheim.de

Supplier

Company name:	REMA TIP TOP / North America Inc.
Street:	1500 Industrial Blvd
Place:	Madison, GA 30650, USA
Telephone:	+1 800 225 7362,
Internet:	www.rematiptop.com

Emergency phone number: INTERNATIONAL: +49 - (0) 6132 - 84463, GBK GmbH (24h - 7d/w - 365d/a) (USA domestic) 1 800 535 5053 or international (001) 352 323 3500 Infotrac/GBK GmbH-ID: 93591

2. Hazard(s) identification

Classification of the chemical

Regulation (EC) No 1272/2008

Flam. Liq. 2; H225
Skin Irrit. 2; H315
Eye Irrit. 2; H319
STOT SE 3; H336
Aquatic Chronic 1; H410

Full text of hazard statements: see SECTION 16.

Label elements

Regulation (EC) No 1272/2008

Hazard components for labelling

Ethyl acetate
Cyclohexane

Signal word: Danger

Pictograms:

Hazard statements

H225	Highly flammable liquid and vapor
H315	Causes skin irritation
H319	Causes serious eye irritation
H336	May cause drowsiness or dizziness
H410	Very toxic to aquatic life with long lasting effects

Precautionary statements

P210	Keep away from heat/sparks/open flames/hot surfaces. - No smoking.
P261	Avoid breathing vapour.
P280	Wear protective gloves/protective clothing/eye protection/face protection.
P303+P361+P353	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.
P305+P351+P338	If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P312	Call a poison center/doctor if you feel unwell.
P273	Avoid release to the environment.

Special labelling of certain mixtures

EUH208	Contains Colophonium. May produce an allergic reaction.

Hazards not otherwise classified

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

Vapours may form explosive mixture with air.

3. Composition/information on ingredients

Mixtures

Chemical characterization

Preparation in organic solvents

Hazardous components

CAS No	Components			Quantity
	EC No	Index No	REACH No	
	Classification (Regulation (EC) No 1272/2008)			
110-82-7	Cyclohexane			< 40 %
	203-806-2	601-017-00-1	01-2119463273-41	
	Flam. Liq. 2, Skin Irrit. 2, STOT SE 3, Asp. Tox. 1, Aquatic Acute 1, Aquatic Chronic 1; H225 H315 H336 H304 H400 H410			
141-78-6	Ethyl acetate			< 40 %
	205-500-4	607-022-00-5	01-2119475103-46	
	Flam. Liq. 2, Eye Irrit. 2, STOT SE 3; H225 H319 H336 EUH066			
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			
13463-67-7	Titanium dioxide			< 1 %
	236-675-5	022-006-00-2	01-2119489379-17	
	Carc. 2; H351			

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

Specific Conc. Limits, M-factors and ATE

CAS No	EC No	Components	Quantity
	Specific Conc. Limits, M-factors and ATE		
110-82-7	203-806-2	Cyclohexane	< 40 %
	inhalation: LC50 = 14 mg/l (vapours); dermal: LD50 = 2000 mg/kg; oral: LD50 = 12705 mg/kg		
1314-13-2	215-222-5	Zinc oxide	< 5 %
	Aquatic Acute 1; H400: M=1 Aquatic Chronic 1; H410: M=1		

4. First-aid measures

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 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.

Summon a doctor immediately.
Induce vomiting only upon the advice of a physician.

Most important symptoms and effects, both acute and delayed

Causes serious eye irritation.
May cause drowsiness or dizziness.
Attention. Beware of aspiration danger.

Indication of any immediate medical attention and special treatment needed

Treat symptoms.

5. Fire-fighting measures

Extinguishing media

Suitable extinguishing media

Foam, carbon dioxide (CO2), dry chemical, water-spray.

Unsuitable extinguishing media

Full water jet.

Specific hazards arising from the chemical

Fire may produce:
carbon monoxide and carbon dioxide
Hydrogen chloride gas.

Special protective equipment and precautions for fire-fighters

Use breathing apparatus with independent air supply.
Protective suit.

Additional information

The vapour/air mixture is explosive, even in empty, uncleaned receptacles.
Cool containers at risk with water spray jet.
Fire residues and contaminated firefighting water must be disposed of in accordance with the local regulations.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

General advice

Use only explosion-proof equipment.
Ensure adequate ventilation.
Remove persons to safety.
Keep away sources of ignition.
Keep away noninvolved persons.

For non-emergency personnel

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

For emergency responders

In case of vapour formation use respirator.
Use personal protective clothing.

Environmental precautions

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

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.

Reference to other sections

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

7. Handling and storage

Precautions for safe handling

Advice on safe handling

Keep container tightly closed.
Vapours are heavier than air and spread along ground.
Keep a good ventilation and air-exhaust at the place of work.
Avoid contact with skin, eyes and clothing.

Advice on protection against fire and explosion

Do not smoke - volatile.
Keep away from heat and sources of ignition.
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.
Avoid contact with skin, eyes and clothing.
Remove and wash contaminated clothes before re-use.

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.

Hints on joint storage

Incompatible with oxidizing agents.

Further information on storage conditions

Keep away from food, drink and animal feeding stuffs.

Specific end use(s)

Adhesive

8. Exposure controls/personal protection

Control parameters

Exposure limits

CAS No	Substance	ppm	mg/m³	f/cc	Category	Origin
8050-09-7	(OLD) Rosin core solder thermal decomposition products (colophony)	-	-		as low as possible	ACGIH-2023
110-82-7	Cyclohexane	300	1050		TWA (8 h)	PEL
		300	1050		TWA (8 h)	REL
		100			TWA (8 h)	ACGIH-2023
141-78-6	Ethyl acetate	400	1400		TWA (8 h)	PEL
		400	1400		TWA (8 h)	REL
		400			TWA (8 h)	ACGIH-2023
13463-67-7	Titanium dioxide Total dust	-	15		TWA (8 h)	PEL
13463-67-7	Titanium dioxide: Finescale particles (Respirable particulate matter)		2.5		TWA (8 h)	ACGIH-2023
13463-67-7	Titanium dioxide				as low as possible	REL
1314-13-2	Zinc oxide (Dust)	-	5		TWA (8 h)	REL
		-	C 15		Ceiling	REL
1314-13-2	Zinc oxide (respirable fraction)		2		TWA (8 h)	ACGIH-2023
			10		STEL (15 min)	ACGIH-2023
1314-13-2	Zinc oxide Respirable fraction	-	5		TWA (8 h)	PEL

Biological Exposure Indices (BEI-ACGIH)

CAS No	Substance	Determinant	Value	Test material	Sampling time
110-82-7	CYCLOHEXANE	1,2-Cyclohexanediol (with hydrolysis, creatinine)	50 mg/g	urine	End of shift, end of workweek

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.
Eye wash bottle with pure water.

Hand protection

Splash protection:
Protective gloves resistant to chemicals made off butyl, Minimum coat thickness 0.7 mm, Permeation resistance (wear duration) > 30 minutes, i.e. protective glove <Butoject 898> 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

Solvent-resistant apron.

Respiratory protection

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

9. Physical and chemical properties

Information on basic physical and chemical properties

Physical state:	Liquid
Color:	Blue
Odor:	Fruity

		Test method
Changes in the physical state		
Melting point/freezing point:	< 30 °C	
Boiling point or initial boiling point and boiling range:	> 76 °C	
Sublimation point:	n.a.	
Softening point:	n.d.	
Flash point:	- 18 °C	
Flammability		
Solid/liquid:	n.a.	
Explosive properties		
The product is considered non-explosive; nevertheless explosive vapour/air mixture can be generated.		
Lower explosion limits:	1,2 vol. %	
Upper explosion limits:	11,5 vol. %	
Auto-ignition temperature:	260 °C	
Self-ignition temperature		
Solid:	n.a.	
Gas:	n.a.	
Decomposition temperature:	n.d.	
pH-Value:	n.d.	
Viscosity / dynamic:	2000 mPa·s	
Viscosity / kinematic: (at 40 °C)	> 20,5 mm²/s	
Flow time:	> 30 s	3 DIN/ISO 2431
Water solubility: (at 20 °C)	Immiscible	
Solubility in other solvents		
n.d.		
Partition coefficient n-octanol/water:	n.d.	
Vapor pressure: (at 20 °C)	104 hPa	
Density (at 20 °C):	0,9 g/cm³	
Bulk density:	n.a.	
Relative vapour density:	n.d.	

Other information

Information with regard to physical hazard classes

Sustaining combustion:	Sustaining combustion

Oxidizing properties

Not oxidising.

Other safety characteristics

Solvent separation test:	n.d.
Solvent content:	< 80 %
Evaporation rate:	n.d.

Further Information

No data available

10. Stability and reactivity

Reactivity

No decomposition if stored and applied as directed.

Chemical stability

Stable under normal conditions.

Possibility of hazardous reactions

Reactions with oxidizing agents.

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.

Incompatible materials

Strong oxidizing agents

Hazardous decomposition products

No hazardous decomposition products known.
Fire may produce:
Hydrogen chloride gas
Carbon monoxide and carbon dioxide

11. Toxicological information

Information on toxicological effects

Acute toxicity

Based on available data, the classification criteria are not met.
No toxicological data available.
Ethyl acetate
LD50/oral/rat: 4935 mg/kg
LC50/inhalativ/rat: 1600 mg/l
Cyclohexane
LD50/oral/rat: 12705 mg/kg

ATEmix calculated

ATE (oral) > 2000 mg/kg; ATE (dermal) > 2000 mg/kg; ATE (inhalation vapour) > 20 mg/l; ATE (inhalation dust/mist) > 5 mg/l

Irritation and corrosivity

Skin corrosion/irritation: Causes skin irritation
Serious eye damage/eye irritation: Causes serious eye irritation

Sensitizing effects

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

Specific target organ toxicity (STOT) - single exposure

May cause drowsiness or dizziness (Cyclohexane; Ethyl acetate)

Specific target organ toxicity (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.

Route(s) of Entry

Skin and eye contact, inhalation and ingestion.

Additional information on tests

This product is classified in accordance with the GHS regulations.

Information on other hazards

Endocrine disrupting properties

No data available

Other information

May cause irritation of the mucous membranes.
Effects of breathing high concentrations of vapour may include.
Headache, dizziness, weakness, unconsciousness.

12. Ecological information

Ecotoxicity

Ecological data are not available.
Cyclohexane
EC50/Daphnia magna/48 h = 0,9 mg/l
IC50/Selenastrum capricornutum/72 h > 4 mg/l
Very toxic to aquatic life with long lasting effects.

Persistence and degradability

No data available

Bioaccumulative potential

No data available

Mobility in soil

No data available

Results of PBT and vPvB assessment

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

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.

Other adverse effects

Hazardous water pollutant.

Further information

Do not flush into surface water or sanitary sewer system.

13. Disposal considerations

Waste treatment methods

Disposal recommendations

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

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.

14. Transport information

Land transport (ADR/RID)

UN number or ID number:	UN 1133
UN proper shipping name:	ADHESIVES
Transport hazard class(es):	3
Packing group:	II
Hazard label:	3

Classification Code:	F1
Limited quantity:	5 L / 30 kg
Excepted quantity:	E2
Transport category:	2
Hazard No:	33
Tunnel restriction code:	D/E

Inland waterways transport (ADN)

UN number or ID number:	UN 1133
UN proper shipping name:	Adhesives
Transport hazard class(es):	3
Packing group:	II
Hazard label:	3

Classification Code:	F1
Limited quantity:	5 L / 30 kg
Excepted quantity:	E2

Marine transport (IMDG)

UN number or ID number:	UN 1133
UN proper shipping name:	ADHESIVES (Cyclohexane)
Transport hazard class(es):	3
Packing group:	II
Hazard label:	3

Marine pollutant:	Yes
Limited quantity:	5 L / 30 kg
Excepted quantity:	E2
EmS:	F-E, S-D

Air transport (ICAO-TI/IATA-DGR)

UN number or ID number:	UN 1133
UN proper shipping name:	ADHESIVES

Transport hazard class(es):	3
Packing group:	II
Hazard label:	3

Limited quantity Passenger:	1 L	
Passenger LQ:	Y341	
Excepted quantity:	E2	
IATA-packing instructions - Passenger:		353
IATA-max. quantity - Passenger:		5 L
IATA-packing instructions - Cargo:		364
IATA-max. quantity - Cargo:		60 L

Environmental hazards

ENVIRONMENTALLY HAZARDOUS: Yes

Special precautions for user

Handle in accordance with good industrial hygiene and safety practice.

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

The transport takes place only in approved and appropriate packaging.

15. Regulatory information

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 57, Entry 75

Directive 2004/42/EC on VOC in paints and varnishes:	70 - 75%
Information according to Directive 2012/18/EU (SEVESO III):	P5c FLAMMABLE LIQUIDS
Additional information:	E1

National regulatory information

Employment restrictions:	Observe employment restrictions for young people. Observe employment restrictions for child bearing mothers and nursing.
Water hazard class (D):	2 - obviously hazardous to water

Chemical Safety Assessment

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

16. Other information

Changes

This data sheet contains changes from the previous version in section(s): 1.

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

Classification	Classification procedure
Flam. Liq. 2; H225	On basis of test data
Skin Irrit. 2; H315	Calculation method
Eye Irrit. 2; H319	Calculation method
STOT SE 3; H336	Calculation method
Aquatic Chronic 1; H410	Calculation method

Relevant H statements (full text)

H225	Highly flammable liquid and vapor
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
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
EUH066	Repeated exposure may cause skin dryness or cracking.
EUH208	Contains Colophonium. May produce an allergic reaction.

Other data

The information in this document is based on the present state of knowledge and is applicable to the product with regard to appropriate safety precautions.
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.)