1. Identification

Product identifier

TIP TOP CEMENT SC 4000 White

Art.-No.

525 2695, 525 2704, 5252705, 525 2712, 525 2729

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

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 telephone number: INTERNATIONAL: +49 - (0) 6132 - 84463, GBK GmbH (24h - 7d/w - 365d/a)
(001) 352 323 3500 Infotrac/GBK GmbH-ID: 93591

2. Hazard identification

Classification of the substance or mixture

WHMIS 2015

Flammable liquids: Flam. Liq. 2
Skin corrosion/irritation: Skin Irrit. 2
Serious eye damage/eye irritation: Eye Irrit. 2
Respiratory or skin sensitization: Skin Sens. 1
Specific target organ toxicity - single exposure: STOT SE 3 (narcotic effects)
Hazardous to the aquatic environment: Aquatic Chronic 1
Hazardous to the aquatic environment: Aquatic Acute 3

Label elements

WHMIS 2015

Signal word: Danger

Pictograms:

Hazard statements

Highly flammable liquid and vapour.
Causes skin irritation.
Causes serious eye irritation.
May cause an allergic skin reaction.
May cause drowsiness or dizziness.

Very toxic to aquatic life with long lasting effects.

Precautionary statements

Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
Avoid breathing vapour.
Wear protective gloves/protective clothing/eye protection/face protection.
IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower.
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.
Call a POISON CENTER/doctor if you feel unwell.
Avoid release to the environment.

Other hazards

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	Chemical name	Quantity
110-82-7	Cyclohexane	< 40 %
141-78-6	Ethyl acetate	< 40 %
8050-09-7	Colophony	< 1 %
13463-67-7	Titanium dioxide	0.1 - < 1% (*)

(*) The actual concentration is withheld as a trade secret.

Further Information

Note: The classification as a carcinogen by inhalation applies only to mixtures in powder form containing 1 % or more of titanium dioxide which is in the form of or incorporated in particles with aerodynamic diameter < = 10 µm.

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.
Never give anything by mouth to an unconscious person.
Summon a doctor immediately.
Induce vomiting only upon the advice of a physician.

Most important symptoms and effects, whether acute or delayed

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

Indication of immediate medical attention and special treatment needed

Treat symptoms.
Risk of pulmonary oedema. Keep under medical supervision for at least 48 hours.

5. Fire-fighting measures

Extinguishing media

Suitable extinguishing media

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

Unsuitable extinguishing media

Full water jet.

Specific hazards arising from the hazardous product

Fire may produce:
carbon monoxide and carbon dioxide
Hydrogen chloric 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.

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.

8. Exposure controls/Personal protection

Control parameters

Exposure limits (ACGIH)

CAS No	Chemical name	ppm	mg/m³	F/ml	Category	Origin
8050-09-7	(OLD) Rosin core solder thermal decomposition products (colophony)	-	-		as low as possible	ACGIH-2023
110-82-7	Cyclohexane	100			TWA (8 h)	ACGIH-2023
141-78-6	Ethyl acetate	400			TWA (8 h)	ACGIH-2023
13463-67-7	Titanium dioxide: Finescale particles (Respirable particulate matter)		2.5		TWA (8 h)	ACGIH-2023
13463-67-7	Titanium dioxide: Nanoscale particles (Respirable particulate matter)		0.2		TWA (8 h)	ACGIH-2023
1314-13-2	Zinc oxide (respirable fraction)		2		TWA (8 h)	ACGIH-2023
			10		STEL (15 min)	ACGIH-2023

Biological limit values

CAS No	Chemical name	Parameter	Value	Test material	Sampling time
110-82-7	CYCLOHEXANE (ACGIH 2023)	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

Safety goggles with side protection (splash protection) or tightly fitting goggles (EN 166)
Eye wash bottle with pure water.

Hand protection

Splash protection:
Protective gloves resistant to chemicals made of nitrile, Minimum coat thickness 0.4 mm, Permeation resistance (wear duration) > 10 minutes.
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

Long sleeved clothing.

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 - viscous
Colour:	White
Odour:	Fruity

	Test method
Changes in the physical state	
Melting point/freezing point:	n.d.

Boiling point or initial boiling point and boiling range:	77 - 81 °C	
Sublimation point:	n.a.	
Softening point:	n.d.	
Pour point:	n.d.	
Flash point:	- 19 °C	DIN EN ISO 13736

Flammability

Solid/liquid: n.a.

Explosive properties

The product is considered non-explosive; nevertheless explosive vapour/air mixture can be generated.

Lower explosive limits:	~ 1,2 vol. %	
Upper explosive limits:	~ 11,5 vol. %	
Auto-ignition temperature:	> 250 °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: (at 23 °C)	116 s	6 DIN EN ISO 2431
Water solubility: (at 20 °C)	Immiscible	

Solubility in other solvents

n.d.

Partition coefficient n-octanol/water:	n.d.	
Vapour pressure: (at 20 °C)	~ 100 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:	0 %
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

May cause an allergic skin reaction. (Colophony)

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

May cause drowsiness or dizziness. (Cyclohexane; Ethyl acetate)

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.

Information on likely routes of exposure

Skin and eye contact, inhalation and ingestion.

Additional information on tests

Classification in compliance with the assessment procedure specified in the Regulation (EC) no 1272/2008.

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.
Repeated or prolonged exposure may cause skin irritation and dermatitis, due to degreasing properties of the product.

12. Ecological information

Ecotoxicity

Ecological dates are not available.
Colophony
LC50/EC50: > 100 mg/l
Cyclohexane
EC50/Daphnia magna/48 h = 0,9 mg/l
IC50/Selenastrum capricornutum/72 h > 4 mg/l
Ethyl acetate
LC50/EC50/EC50 : > 100 mg/l
Zinc oxide
EC50/Ceriodaphnia dubia/48 h = 0,01 - 0,1 mg/l
EC50/Selenastrum capricornutum/72 h = 0,01 - 0,1 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

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

Canadian TDG

UN number:	UN 1133
Proper shipping name:	Adhesives
Hazard classes:	3
Packing group:	III
Hazard label:	3
Limited quantity:	5L

Marine transport (IMDG)

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

Limited quantity:	5 L
Excepted quantity:	E1
EmS:	F-E, S-D

Other applicable information (marine transport)

Receptacle max. 450 L, IMDG Code subsection 2.3.2.2

Air transport (ICAO-TI/IATA-DGR)

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

Limited quantity Passenger:	10 L
Passenger LQ:	Y344
Excepted quantity:	E1
IATA-packing instructions - Passenger:	355
IATA-max. quantity - Passenger:	30 L (*)
IATA-packing instructions - Cargo:	366
IATA-max. quantity - Cargo:	100 L (*)

Other applicable information (air transport)

(*) [3.3.3.1 IATA DGR]

Environmental hazards

ENVIRONMENTALLY HAZARDOUS: Yes

15. Regulatory information

Canadian regulations

DSL/NDSL inventory status

All components are listed on the DSL Inventory.

National Pollutant Release Inventory (NPRI)

Ethyl acetate (141-78-6): < 40%

WHMIS classification

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations (CPR) and the MSDS contains all information required by the CPR.

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

Further Information

Data of sections 4 to 8, as well as 10 to 12, do not necessarily refer to the use and the regular handling of the product (in this sense consult package leaflet and expert information), but to release 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.)