1. Identification

Product identifier

TIP TOP SOLVENT CF-CE

Art.-No.

595 9163, 595 9175, 356 1811

Recommended use of the chemical and restrictions on use

Use of the substance/mixture

Cleaning agent

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

29 CFR Part 1910.1200

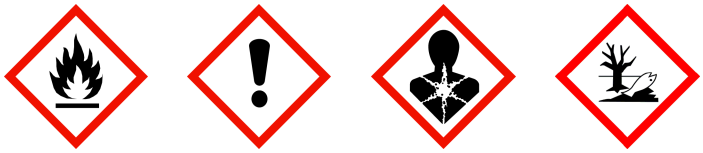
Flammable liquids: Flam. Liq. 2
Aspiration hazard: Asp. Tox. 1
Skin corrosion/irritation: Skin Irrit. 2
Serious eye damage/eye irritation: Eye Irrit. 2A
Specific target organ toxicity single exposure: STOT SE 3 (narcotic effects)
Hazardous to the aquatic environment: Aquatic Acute 1
Hazardous to the aquatic environment: Aquatic Chronic 1

Label elements

29 CFR Part 1910.1200

Signal word: Danger

Pictograms:



Hazard statements

Highly flammable liquid and vapor
May be fatal if swallowed and enters airways
Causes skin irritation
Causes serious eye irritation

May cause drowsiness or dizziness
Very toxic to aquatic life with long lasting effects

Precautionary statements

Keep away from heat/sparks/open flames/hot surfaces. - No smoking.
Avoid breathing vapour.
Wear protective gloves/protective clothing/eye protection/face protection.
If swallowed: Immediately call a poison center/doctor.
Do NOT induce vomiting.
If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
Avoid release to the environment.

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

Mixture of solvents

Hazardous components

CAS No	Components	Quantity
141-78-6	Ethyl acetate	< 55 %
110-82-7	Cyclohexane	< 55 %

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 skin irritation.
Causes serious eye irritation.
May cause drowsiness or dizziness.

May be fatal if swallowed and enters airways.

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

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

Ensure adequate ventilation.
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.
Use only explosion-proof equipment.

Environmental precautions

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

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.

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

CAS No	Substance	ppm	mg/m³	f/cc	Category	Origin
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

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.

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.
Avoid contact with skin, eyes and clothing.
Remove and wash contaminated clothes before re-use.

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:	Colourless
Odor:	Fruity
pH-Value:	n.a.
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:	- 11 °C
Sustaining combustion:	Sustaining combustion
Flammability	
Solid/liquid:	n.a.

Explosive properties

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

Lower explosion limits:	approx. 1,2 vol. %
Upper explosion limits:	approx. 11,5 vol. %
Auto-ignition temperature:	260 °C
Self-ignition temperature	
Solid:	n.a.
Gas:	n.a.
Decomposition temperature:	n.d.

Oxidizing properties

Not oxidising.

Vapor pressure: (at 20 °C)	104 hPa
Density (at 20 °C):	approx. 0,83 g/cm³
Bulk density:	n.a.

Water solubility: (at 20 °C)	Immiscible

Solubility in other solvents

n.d.

Partition coefficient n-octanol/water:	n.d.
Viscosity / dynamic:	n.d.
Viscosity / kinematic: (at 40 °C)	< 20,5 mm²/s
Flow time:	n.d.
Relative vapour density:	n.d.
Solvent separation test:	n.d.
Solvent content:	100 %

Other information

No data available

10. Stability and reactivity

Reactivity

No decomposition if stored and applied as directed.

Chemical stability

Stability: Stable

Stable under normal conditions.

Possibility of hazardous reactions

Hazardous reactions: Will not occur

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:
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

Causes skin irritation
Causes serious eye irritation

Sensitizing effects

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

Carcinogenic/mutagenic/toxic effects for reproduction

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

Specific target organ toxicity (STOT) - single exposure

May cause drowsiness or dizziness (Ethyl acetate; Cyclohexane)

Specific target organ toxicity (STOT) - repeated exposure

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

Carcinogenicity (OSHA):	No ingredient of this mixture is listed.
Carcinogenicity (IARC):	No ingredient of this mixture is listed.
Carcinogenicity (NTP):	No ingredient of this mixture is listed.

Aspiration hazard

May be fatal if swallowed and enters airways

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.
Very toxic to aquatic life with long lasting effects.
Cyclohexane
EC50/Daphnia magna/48 h = 0,9 mg/l
IC50/Selenastrum capricornutum/72 h > 4 mg/l

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

US DOT 49 CFR 172.101

UN number or ID number:	UN 1993
Proper shipping name:	FLAMMABLE LIQUIDS, N.O.S. (Cyclohexane, Ethyl acetate)
Transport hazard class(es):	3
Packing group:	II
Hazard label:	3

Marine transport (IMDG)

UN number:	UN 1993
UN proper shipping name:	FLAMMABLE LIQUID, N.O.S. (cyclohexane and ethyl acetate)
Transport hazard class(es):	3
Packing group:	II
Hazard label:	3

Marine pollutant:	Yes
Special Provisions:	274
Limited quantity:	1 L / 30 kg
Excepted quantity:	E2
EmS:	F-E, S-E

Air transport (ICAO-TI/IATA-DGR)

UN number:	UN 1993
UN proper shipping name:	FLAMMABLE LIQUID, N.O.S. (cyclohexane and ethyl acetate, solution)
Transport hazard class(es):	3
Packing group:	II
Hazard label:	3

Special Provisions:	A3
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

U.S. Regulations

National Inventory TSCA

All of the components are on the TSCA Inventory.

National regulatory information

SARA Section 304 CERCLA:

Ethyl acetate (141-78-6): Reportable quantity = 5,000 (2270) lbs. (kg)

Cyclohexane (110-82-7): Reportable quantity = 1,000 (454) lbs. (kg)

SARA Section 311/312 Hazards:

Ethyl acetate (141-78-6): Fire hazard, Immediate (acute) health hazard

Cyclohexane (110-82-7): Fire hazard, Immediate (acute) health hazard

SARA Section 313 Toxic release inventory:

Cyclohexane (110-82-7): De minimis limit = 1.0 %, Reportable threshold = Standard

State Regulations

Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65, State of California)

This product can not expose you to chemicals known to the State of California to cause cancer, birth defects or other reproductive harm.

16. Other information

Changes

Revision date:	11/16/2023
Revision No:	2,3

This data sheet contains changes from the previous version in section(s): 8,10,12,15.

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

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 hazardous ingredients were taken respectively from the last version of the sub-contractor's safety data sheet.)