

Safety Data Sheet

according to Regulation (EC) No 1907/2006

TIP TOP SOLVENT CH

Revision date: 04.04.2018

Product code: 00359-1335

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

1.1. Product identifier

TIP TOP SOLVENT CH

Art.-No.

590 2500, 590 2510

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

Use of the substance/mixture

Cleaning agent

Uses advised against

No information available.

1.3. Details of the supplier of the safety data sheet

Company name: TIP TOP Oberflächenschutz 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)
In England and Wales: NHS 111 In Scotland: NHS 24 - dial 111

Further Information

Se certifica que CODELCO-CHILE será el usuario final de este producto.

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Regulation (EC) No. 1272/2008

Hazard categories:

Flammable liquid: Flam. Liq. 2

Acute toxicity: Acute Tox. 4

Acute toxicity: Acute Tox. 4

Acute toxicity: Acute Tox. 4

Skin corrosion/irritation: Skin Irrit. 2

Serious eye damage/eye irritation: Eye Dam. 1

Hazard Statements:

Highly flammable liquid and vapour.

Harmful if inhaled.

Harmful in contact with skin.

Harmful if swallowed.

Causes skin irritation.

Causes serious eye damage.

2.2. Label elements

Regulation (EC) No. 1272/2008**Hazard components for labelling**

Cyclohexanone

Signal word: Danger**Pictograms:**

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Hazard statements

- H225 Highly flammable liquid and vapour.
H302+H312+H332 Harmful if swallowed, in contact with skin or if inhaled.
H315 Causes skin irritation.
H318 Causes serious eye damage.

Precautionary statements

- P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P271 Use only outdoors or in a well-ventilated area.
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 or shower.
P370+P378 In case of fire: Use Dry chemical, alcohol-resistant foam to extinguish.
P403+P235 Store in a well-ventilated place. Keep cool.

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.
Vapours may form explosive mixture with air.

SECTION 3: Composition/information on ingredients**3.2. Mixtures****Chemical characterization**

Mixture of organic solvents

Hazardous components

CAS No	Chemical name	Quantity		
	EC No	Index No	REACH No	
	Classification according to Regulation (EC) No. 1272/2008 [CLP]			
108-94-1	Cyclohexanone			> 95 %
	203-631-1	606-010-00-7	01-2119453616-35	
	Flam. Liq. 3, Acute Tox. 4, Acute Tox. 4, Acute Tox. 4, Skin Irrit. 2, Eye Dam. 1; H226 H332 H312 H302 H315 H318			

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.
In the event of symptoms refer for medical treatment.

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.
Consult (eye) doctor immediately.



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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.
- The decision whether to induce vomiting or not is to be taken by a physician.
- Attention, beware danger of aspiration.

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

- Harmful if swallowed, in contact with skin or if inhaled.
- Causes serious eye damage.
- Causes skin irritation.

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 (CO₂), water-spray

Unsuitable extinguishing media

- Full water jet.

5.2. Special hazards arising from the substance or mixture

- Fire may produce:
carbon monoxide and carbon dioxide

5.3. Advice for firefighters

- Use breathing apparatus with independent air supply.
- Protective suit.

Additional information

- Vapours are heavier than air and spread along ground.
- 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.

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.
- Keep away sources of ignition.

6.2. Environmental precautions

- Do not discharge into the drains/surface waters/ground water.

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.
- Clean contaminated surface thoroughly.

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

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Advice on safe handling

- Keep container tightly closed.
- Use only in area provided with appropriate exhaust ventilation.
- In case of insufficient ventilation wear suitable respiratory equipment (gas filter type A) (EN 14387).

Advice on protection against fire and explosion

- Keep product and empty container away from heat and sources of ignition.
- Pay attention to anti-explosion rules.
- Do not smoke.
- Take precautionary measures against static discharges.

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.
- Keep away from heat and sources of ignition.
- Recommended storage temperature: 15 - 25°C

Advice on storage compatibility

- Incompatible with:
 - Strong 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)

- Cleaning agent

SECTION 8: Exposure controls/personal protection**8.1. Control parameters****Exposure limits (EH40)**

CAS No	Substance	ppm	mg/m ³	fibres/ml	Category	Origin
108-94-1	Cyclohexanone	10	41		TWA (8 h)	WEL
		20	82		STEL (15 min)	WEL

Biological Monitoring Guidance Values (EH40)

CAS No	Substance	Parameter	Value	Test material	Sampling time
108-94-1	Cyclohexanone	cyclohexanol	2 mmol/mol	urine	Post shift

8.2. Exposure controls**Appropriate engineering controls**

- Ensure adequate ventilation, especially in confined areas.
- Pay attention to explosion protection guidelines.

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.
- Remove and wash contaminated clothes before re-use.

Eye/face protection

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

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Hand protection

Protective gloves resistant to chemicals made off butyl, minimum coat thickness 0.7 mm, permeation resistance approx. 480 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 (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:	Colourless
Odour:	Characteristic

Test method

pH-Value:	n.d.
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Changes in the physical state

Melting point:	- 31 °C
Initial boiling point and boiling range:	approx. 154 °C
Sublimation point:	n.d.
Softening point:	n.d.
Pour point:	n.d.
Flash point:	approx. 44 °C Closed cup

Flammability

Solid:	n.a.
Gas:	n.a.

Explosive properties

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

Lower explosion limits:	1,1 vol. %
Upper explosion limits:	9,4 vol. %
Ignition temperature:	420 °C

Auto-ignition temperature

Solid:	n.a.
Gas:	n.a.

Decomposition temperature:	n.d.
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Oxidizing properties

Not fire-promoting.

Vapour pressure:	5,0 hPa
Density (at 20 °C):	0,9465 g/cm ³
Bulk density:	n.a.
Water solubility: (at 20 °C)	86 g/L
Partition coefficient:	Log Pow:0,86 (25°C)

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Viscosity / dynamic:	n.d.
Viscosity / kinematic:	n.d.
Flow time:	n.d.
Vapour density:	3,4
Evaporation rate:	0,3
Solvent separation test:	0 %
Solvent content:	100 %

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, alkalis and oxidizing agents
Reacts with air to form peroxides.

10.4. Conditions to avoid

To avoid thermal decomposition, do not overheat.
Vapours may form explosive mixture with air.

10.5. Incompatible materials

Strong oxidizing agents.
Acids and bases.

10.6. Hazardous decomposition products

Fire may produce:
Carbon monoxide and carbon dioxide

SECTION 11: Toxicological information**11.1. Information on toxicological effects****Acute toxicity**

Harmful if swallowed, in contact with skin or if inhaled.

Cyclohexanone

LD50/oral/rat: 1620 mg/kg

LD50/dermal/rabbit: 1100 mg/kg

LC50/inhalation/rat: 11 mg/l/4 h

Irritation and corrosivity

Causes skin irritation.

Causes serious eye damage.

Sensitising 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.

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.

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Aspiration hazard

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

Practical experience**Other observations**

Inhalation of high vapour concentration may cause symptoms like headache, dizziness, tiredness, nausea and vomiting.

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

Risk of dangerous resorption through skin.

SECTION 12: Ecological information**12.1. Toxicity**

Ecological data are not available.

Cyclohexanone

LC50/Pimephales promelas/96 h = 527 - 732 mg/l

LC50/Leuciscus idus/96 h = 536 - 752 mg/l

LC50/Daphnia magna/24 h = 800 mg/l

EC50/Chlamydomonas reinhardtii/72 h = 32,9 mg/l

12.2. Persistence and degradability

Readily biodegradable (to OECD criteria). (87%, 14 days; 90 - 100%, 28 days)

12.3. Bioaccumulative potential

Low bio-accumulation can be estimated because of low log Po/w.

12.4. Mobility in soil

High mobility in soil.

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

Low hazard to waters.

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; hazardous waste

Contaminated packaging

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.

Empty containers should be taken for local recycling, recovery or waste disposal.

SECTION 14: Transport information

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Land transport (ADR/RID)

14.1. UN number: UN 1915
14.2. UN proper shipping name: CYCLOHEXANONE
14.3. Transport hazard class(es): 3
14.4. Packing group: III
Hazard label: 3



Classification code: F1
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: UN 1915
14.2. UN proper shipping name: CYCLOHEXANONE
14.3. Transport hazard class(es): 3
14.4. Packing group: III
Hazard label: 3



Classification code: F1
Limited quantity: 5 L / 30 kg
Excepted quantity: E1

Marine transport (IMDG)

14.1. UN number: UN 1915
14.2. UN proper shipping name: CYCLOHEXANONE
14.3. Transport hazard class(es): 3
14.4. Packing group: III
Hazard label: 3



Marine pollutant: No
Limited quantity: 5 L / 30 kg
Excepted quantity: E1
EmS: F-E, S-D

Air transport (ICAO-TI/IATA-DGR)

14.1. UN number: UN 1915
14.2. UN proper shipping name: CYCLOHEXANONE
14.3. Transport hazard class(es): 3
14.4. Packing group: III
Hazard label: 3

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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: no

14.6. Special precautions for user

Handle in accordance with good industrial hygiene and safety practice.

14.7. Transport in bulk according to Annex II of Marpol 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):	100 %
Information according to 2012/18/EU (SEVESO III):	P5c FLAMMABLE LIQUIDS

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):	1 - slightly water contaminating

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

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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)

H225	Highly flammable liquid and vapour.
H226	Flammable liquid and vapour.
H302	Harmful if swallowed.
H302+H312+H332	Harmful if swallowed, in contact with skin or if inhaled.
H312	Harmful in contact with skin.
H315	Causes skin irritation.
H318	Causes serious eye damage.
H332	Harmful if inhaled.

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.)